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GEELONG NATURALIST

Journal of the Geelong Field Naturalists Club

Hon. Editor,
Trevor Pescott,
4 Victoria Terrace,
Belmont, 3216.

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MORE ON SUBURBAN BIRDS — NEWTOWN

(by Theo Trickett)

RUFOUS FANTAIL: I had a glimpse of a Rufous Fantail again on the evening of 18th March this year; and the next morning it was in clear view from the kitchen window, searching around among the flowers of the New Zealand Fire Tree.

GREY FANTAIL has evidently decided the garden has possibilities and has frequently been seen having a most enjoyable time under the sprinklers, as well as prospecting for insects. One, sometimes two, have now been around the garden for the year since the first visit in February, 1977.

SONG THRUSH tuned up beautifully on 21st June, 1977, and continued singing until December. It seemed obvious that there must be a nest somewhere nearby, as the birds were often about the garden and constantly used song-posts in the garden, but it was not until 9th January this year that we saw a baby song-thrush on the ground. It was quite unafraid, fully fledged, but did not try to fly, and was probably too full to do so, as it had been eating small bits of dripping which silvereyes had dropped from the feed-bag to the ground. The little bird eventually ran away into the garden but although we feared some cat might get it, it must have flown away.

Female (or immature) GOLDEN WHISTLER: First noticed from 8th-21st May, 1977, and occasionally seen during the rest of the year, it was a pleasure to be in the garden on the morning of 2nd April this year, with madame sitting on one stake or another nearby. She was making pretty "chip" noises. Then the male burst forth with a resounding roundelay, and madame decided she had better leave, and flew off to the Kootamundra from which the call had come.

EASTERN SPINEBILLS: During most months Eastern Spinebills visit ours and neighbouring gardens, and this year, in March, there were two immature ones with the others. The competition at the nectar pots is pretty severe, and they have decided they like the dripping in the onion bag; the silvereyes don't quarrel with those spinebill beaks and sit, making plaintive noises, as the visitors tuck in.

INDIAN MYNAH: There were two recorded on 14th November last year in the old tip at West Fyans Street, and the next day, to the great agitation of the resident blackbirds, one was observed arrogantly parading on our back lawn. Three were observed near Balliang Sanctuary last year on November 7th.

RAINBOW LORIKEETS: On December 23rd two Musk Lorikeets flew in to the nectar pots with the Rainbow Lorikeets, and have come in with them ever since, and have only been seen in the company of the Rainbows. There were two young Rainbow Lorikeets noticed on 1st January this year. The numbers at the pots vary between five and seven.

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STRIATED AND SPOTTED PARDALOTES call from the trees quite often, but on 20th March this year a Spotted Pardalote kept me waiting, not two feet away, watering can in hand to replenish the bird bath, while he had a drink and a bathe.

WHITE-NAPED HONEYEATERS — sometimes seen in the garden, and in May, June and September last year a small company of these handsome little birds were around the bird baths and nectar pots.

Pecking order at the nectar pots: Rainbow Lorikeets, Musk Lorikeets, Red Wattle Birds. Then the resident White-plumed Honeyeaters, and which ever other honeyeaters are about at the time — Yellow-winged, Yellow-faced, White-naped. Silvereyes sometimes, and often enterprising Sparrows.

Plastic Net Bags

The notes by Ira Savage in Vol. 14, No. 3, p. 68, comment on how aggressive silvereyes become at the feeding bags. For some time we have had two net bags containing dripping, hanging from the hakea outside our kitchen window, and the silvereyes have appropriated these, and brought successive young to feed during December and January.

Very rarely a sparrow will investigate a bag, but they do not stay to argue with the silvereyes. The latter, however, are noticeably absent when Grey Butcher-bird calls in for a mouthful, as they were also absent when a Golden Bronze Cuckoo appeared beside the bags on 15th January this year.

This possessive attitude of the silvereyes is in notable contrast to the first time, some fourteen years ago, when we hung some suet up in a tree. For a whole day no bird investigated it; the next morning a couple of white-plumed honeyeaters tried it (and found it wanting), and shortly afterwards there was an absolute riot of sparrows and starlings squabbling and taking charge. That was the end of that experiment.

A couple of years ago we tried bird porridge in net bags, but so much dropped through the net that we feared it could encourage rats. Hence the present lumps of dripping. The resident blackbirds and song thrushes attend to any bits dropped.

Occasionally Red Wattle-birds and the other honeyeaters visit it, but apparently only to get insects from near the ties of the bags, or the net.

Sometimes the resident (white-backed) magpies use the bird baths, but they show no interest in the net bags.

However, the silvereyes, with their sweet chatter, and hanging every-which-way on the bags, are a constant pleasure to watch.

* *

MORE NOTES ON THE RUFOUS FANTAIL

by VALDA DEDMAN

Theo Trickett in the *Geelong Naturalist,* Vol. 14, No. 3, p. 69, reports on a Rufous Fantail seen at Fyans Park on 12th March, 1977. Was this the same bird observed in our Highton garden by my husband on 8th March, 1977? We have no other record of a Rufous Fantail in our garden on 12 years' observations.

REPORT ON OCEAN GROVE NATURE RESERVE

—Jack Wheeler, Chairman of Committee of Management. — 1977-78

Area—

Old Block	81 ha
New Block	63 ha
Total	144 ha (357 acres)

Crown Land. Control: Committee of Management (8).

Visitors 1977—

Adults	4814	(increase 1435)
Children	3712	(increase 1307)
Total	8526	(increase 2742)

Vehicles 1977 2274 (increase 988)
Holiday visitors 1-1-78 to 6-2-78 — Total, 1503; vehicles, 350.

Information Centre: Building 17 m x 3 m purchased during last winter but wet weather delayed transport of the building until 22 November, 1977, and the next day was blocked and set into position just south-west of the existing car and bus park.

There are four complete rooms, lined and ceiled with masonite and painted white.

Room allocation—
No. 1: Information Centre.
No. 2: Museum.
No. 3: Study room and Library.
No. 4: Store room for equipment.

Information Centre was put into use in time for the holidays and has been used as such ever since.

Landscaping of the area will not be attempted until late Autumn and good rains.

Notice Board is to be removed to a position near the entrance of the Information Centre, also the donation box nearby.

Future meetings will be held at the Information Centre even though electricity is not as yet available. The first committee meeting was held there on 28th November, 1977.

Picnic area: The provision of 5 independent barbecues and satisfactory parking has proved popular over the winter and spring period and all wood is provided.

The old picnic area is to be closed with a heavy planting of trees and shrubs.

A bird drinking trough was donated by Mrs Oates, of Belmont, and by the use of a ball-tap, is connected to the picnic main, and water keeps a permanent level.

Nature Trails: The existing nature trail situated at the entrance of the reserve, just off Grubb Road, now has an extension, known as No. 2 nature trail, and leads through two regeneration areas, one of Swamp Gum (Eucalyptus ovata) and Golden Wattle (Acacia pycnantha). This trail also passes through a swamp section needing stepping blocks cut from pine logs, and finishes at the new picnic area.

Koala Enclosures: Shire Councillors of the Bellarine Shire Council inspected existing enclosure and agreed to fence in another adjoining area taking in 11 eucalypt trees in order that enclosures can be alternated according to availability of foliage. This new enclosure is now completed.

Nine koalas have now passed through our sick bay and eight have been free released.

Bird Hides: Two hides provided have proved very popular throughout the year and best birds recorded being Eastern Shrike Tits and Mountain Thrush. The Bellarine Shire Council kindly filled the north waterhole when it went dry before Christmas. When it went dry, it was cleaned out before taking water again.

Brochure: A new brochure has been planned and is almost ready for the printer and it is planned to have 5000 copies printed initially and when available will be sold at a nominal fee to visitors.

Mark Hackleton has sketched the Small Ant Blue Butterfly for the cover of our next issue.

The Geelong Field Naturalists Club Botany Group have compiled an up-to-date plant list, adding many more species to the original list. The bird list is also updated.

Special Native Gardens: The Grevillea and Acacia gardens have been pegged out and both have at least fifty varieties on the go, whilst the Ocean Grove Garden Club have planted over forty shrubs and during the summer period have a roster for members to water.

Main shrubberies and plantations all doing well and some 2000 are now planted.

Noxious plants: Two areas of furze are persistent and are to be sprayed in the near future by the Bellarine Shire Council.

The Patterson's Curse, Briar and South African Bone-seed are well under control. A new pest has been located on the Eagle Circuit, and has been iden-

Waterfowl Habitat: Owing to lack of finance this project has been delayed but during the next few weeks the area is to be cleared of regenerated wattles in preparation for top-soil removal for stockpiling.

Security Fence: A submission was prepared and forwarded to Premier Mr Hamer at his request, by the Engineer's tified as *Rhamnus alaternus* L, with a common name of Italian Buckthorn, and will be eradicated after the first rains.

Department of the Bellarine Shire Council.

Resignation from Committee: Mr. Reg Guyett, on resigning from the Bellarine Shire Council, automatically dropped off the Committee of Management. Mr Guyett was made a presentation early in March at a special afternoon arranged at the reserve by members and their wives.

Voluntary Duties: Throughout the year many and varied duties were carried out by volunteers and in addition the reserve was manned every day during the holiday periods and apart from that, manned weekends and two week days as well. My personal thanks to all who have been so faithful carrying out their many duties week in and week out. Without these helpers the reserve would never function as it does today.

☆

CATTLE EGRETS RETURN

(by Trevor Pescott)

A solitary Cattle Egret was seen feeding in a paddock near Wurdi Buloc Reservoir on 13 March, 1978; it was apparently the first of its kind to arrive here this year, although by the middle of the year it is customary to have several large flocks in the district.

THE MODEST BARWON

by ROLF BALDWIN

Long ago, around the turn of the centuries, Cuthbertson wrote his *Barwon Ballads*, a set of verses abounding in descriptive passages in praise of the river that he loved so dearly. It is fascinating now, in the days of speedboats and water-skiers, to read in his pages of the flash of a kingfisher over the water, the calls of magpies and kookaburras, of long, peaceful rowing days over the lakes to Barwon Heads, of sheoaks and "honeysuckles", and of forgotten camps at the Willows. In our own day John Bechervaise's *Barwon and Barrabools*, in charming verse and evocative photographs has celebrated the other part of the river, where it skirts the gentle slopes of the Barrabool Hills, as it was 30 years ago, whilst Highton was still a picturesque village and before the houses had marched to the western end of Fyans Street. Nowadays much has been lost of the beauties which enthused the poets, but much has remained, too, and in several parts much has been gained and beauty added to the river that they knew.

Many a Geelongian who daily crosses Barwon Bridge or Princes Bridge and who is familiar enough with the boat race course might be surprised at how much there is that is picturesque and interesting within even a few kilometres upstream or downstream from those points.

How many, for instance, have taken a little time to wander on the river bank, below the boatsheds, by Landy Field? There is nothing spectacular there but the tamarisks and reed-beds are pleasant to look at in all seasons, the swamp hens, coots and moorhens are always amusing to watch and in the spring and early summer the air rings with the thrilling song of the Reed Warbler. The other, southern, side has its rewards, too, if one wanders down past the bridge and the boat ramp to the no man's land that lies between the river bank and the organised tracts of Belmont Common. Impossible territory in the wet weather, this, for it is all clay and the tracks that wander at random among the trees are vilely sticky and slippery. In dry weather, however, they are very attractive. There are natural avenues of gracefully drooping sheoaks and thick clumps of lignum, so that one could imagine oneself in the Riverina were it not for the lambertiana cypresses and a few date palms which have been whimsically planted there, it must be many years ago, for they are now tall and great of girth.

Naturally the stretch of river between the two bridges is familiar to most, but it is suspected that not many give it the attention which it deserves. This is the part which is most accessible and this is where most has been done of recent years to repair the misuse and neglect of the past. This is very noticeable on both banks. Even twenty years ago the northern bank was a neglected, shabby wilderness, with rubbish dumps protruding their ugly snouts on to derelict looking flats. What a change there is now!

Barwon Grange has regained its olden elegance, the trees which Mr Frank Moore planted so lavishly on the slope by the old Polar depot are now growing into a handsome grove whilst the wattles in the G.W.S.T. plantations along the flats are a golden picture in the spring. It is a pleasure indeed to stroll there on mown grass and to watch the bird life around the big pond below Sladen Hall, among the reed beds which border the river, in the new trees that are so refreshingly numerous, or in the few old red gums that still stand as veterans of other days. There is but one mildly jarring note on this bank. That is that, as one walks upstream, one has to turn away from the river at Rocky Point and then go along on bitumen between the two sections of the old Marnock Vale mill before reaching Balyang Sanctuary. What a gracious gesture from the present owners of that property if they were to allow simple stiles to be built in the fences that go down to the river and permit right of way between! This simple amenity, so common in England yet so rare in Victoria, would enable a walker to go along the very edge of the water from Balyang to the McIntyre Bridge.

On the right bank, indeed, even more than this is possible. There is an open way all along the bank from the Queen's Park Bridge to Prince's Bridge and then, of course, free walking — even motoring if one is that way inclined — all the way to Barwon Bridge. Perhaps it is a case of "the least said the better" concerning the upper part of this stretch. Between subdivision for housing, widening of the pathway, pipeline laying and a recent extensive grass-fire, the bank presents a depressing scene of devastation. Suffice it to say that in those parts cisticolas were seen fairly frequently last spring and that doubtless the scars will be healed and those gay little sprites will return.

From Prince's Bridge downwards all is hope. An unsightly wasteland of heaped, gravelly spoil, ragged grass and tumbledown trees is being reformed and rejuvenated. Trees have been pruned to give them again their beauty of shape, ambitious plantings have been undertaken, the land has been contoured to more harmonious shapes, the grass is kept in reasonable order and gay plots of annuals enliven the edge of Barrabool Road. The results of care are also evident along the towpath.

There are now green lawns there, all the trees seem happier and there is a spectacular show of colour when the *Eucalyptus ficifolia* are in splendid bloom. The only worry along here is that a beautiful line of drooping red gums, one of the sights of Geelong, fell to the bulldozer when a levee bank was built to protect one of the caravan parks and that numerous sheoaks have died and are dying in the plantations along the towpath.

A favourite vantage point for all this tract of river is the McIntyre Bridge. The centre of its span gives a superb view of the water, particularly to the West, and by standing there morning and evening through the seasons, one gains an incomparable insight into the river and all its moods, the changing pattern of the sky and the fascinating outline of the Barrabool Hills beyond. From there can be seen, in their season, all the Cormorants, Silver Gulls, sometimes Terns ("little" or "fairy", I wonder?), Grebes, White-faced and Pacific Herons, various Egrets, Swans, Black Duck, Teal, Magpies, Magpie Larks, the Swamphens and their cousins, dignified Plover with their ringing calls, Reed Warblers, noble Pelicans, Black-shouldered Kites, Kestrels, Swallows and, as a grace note, Honeyeaters and even Lorikeets among the fine clump of red gums at the north end of the bridge.

For lack of space no more than passing mention is made of Queen's Park and Buckley's Falls, with their wealth of interest. They would need an article of their own. As a tailpiece, however, let us discuss just one more section of the river — that which stretches from Ceres Bridge down to the top weir above the old paper mill. These two miles are hemmed in by private land on both sides. Being difficult of access they are little known and if one can move along them by canoe or rowing boat, the sense of wilderness, of peace, of remoteness from the ways of men is most palpable. The banks there are so high that from a boat only the water itself, the banks, the overhanging trees and the sky are visible; the birds are numerous; the works of man are scarcely to be seen. For a couple of long reaches below Ceres Bridge the overhanging trees are all red gums, some of immemorial age, others younger but still fine trees, and they are so closely spaced and so stooping in overhang that they make of the stream a watery avenue. On a recent occasion they were loaded with blossom, to the great delight of wattle birds and smaller honeyeaters, though the flocks of lorikeets that one expected were nowhere to be seen, despite the brilliant sunny weather that they love. Lower down there were exotics on the bank, a profusion of great elms, oaks and conifers, and a veritable jungle of *Ailanthus*. We landed to have a look and a rest in the dense shade of a huge elm and the presence of so many strange trees was explained when we realised that we were on a corner of Frogmore, the nursery from which the deadly *Phylloxera* is reputed to have spread over the vineyards of Geelong. One particularly fine tree was subsequently found to be a *Quercus ilex*, the evergreen holm oak that figures prominently in the writings of Virgil.

On those upper reaches one feels more in harmony with the spirit of the Barwon than one does anywhere else along the part of its course that has been mentioned. And, to conclude these wanderings, here are three last, vivid impressions of that one sunny day. One was of a fox strolling on his own affairs on a hillside upwind from us, quite oblivious of our presence for several minutes as we watched. Another was of the superbly decorative pattern made by three pelicans as they sat on a bent log by the river's edge. A third was of the strength and grace of a great swan as it rose from the water ahead, then swept back only a few feet directly above us, and of the wild music of its call.

AN HOUR COUNT No. 25

WYPERFELD NATIONAL PARK, VICTORIA

by ROY WHEELER

When the flood waters of the Wimmera River filled Lake Hindmarsh, then Lake Albacutya and the water flowed down Outlet Creek into the Wyperfeld National Park in late 1975, it was quite an event, the fifth time in 100 years that water had reached this area. Previous floods in 1870-74, 1911-12, 1917-18 and 1957 had penetrated to varying depths and areas and the last big flood in 1918 flowed right through to near Pine Plains and filled all lagoons and lakes in the National Park. In 1956 the water only reached Black Flat but in 1976 it reached Lake Brambruk.

According to information in an early brochure on the Park, in 1847 Mr J. M. Clow followed Outlet Creek north from Lake Albacutya to what was later to be called Pine Plains Station. Mr J. W. Beilby, A. Russell, the Cameron brothers and a surveyor named White were among the first to explore and settle the country north of Rainbow. Most of this area is now the Wyperfeld National Park, the largest in this State. The Pine Plains Run existed until 1855 after which it was separated into two areas, the other the Wonga Lake Run. It passed through various hands in later years and at times not occupied at all. In 1893 much of this sandy country had been resumed by the Crown.

In 1907 Mr Arthur Mattingley, together with fellow naturalists Mr Jack Ross and Mr Frank Howe, visited the central and northern parts of this area and were most impressed with the wealth and beauty of the flora and fauna. The Government of the day was persuaded in 1909 to reserve temporarily 4600 acres of what was to be known as Wyperfeld National Park. Sir James Barrett, chairman of the park's first committee of management, was largely responsible for having the park permanently reserved in 1921 and for having its boundaries extended from time to time. Now it has become one of the most popular national parks within the State and visited by many thousands each year. Over the later years the camping amenities have been most improved and this area now is a very delightful setting amongst the Red Gums and Black Box with a background of sandhills with the typical mallee vegetation. Besides many animals its bird population is 213 species. Two very popular nature trails are the Eastern Lookout Car trail and the Lake Brambruk Nature Trail. The area of the park at present is 56,500 hectares.

When my brother Jack wrote a most impressive account, *The Mallee Receives Flood Waters,* in the August, 1976 (Vol. 13 No. 2) *Geelong Naturalist* I felt that I must visit the area before the water evaporated away. On April 13 and 14, 1977, Mrs Wheeler and I visited Wyperfeld National Park. We went by train to Murtoa and bus to Hopetoun and stayed with an old friend at Rosebery. He kindly drove us to Wyperfeld each day. On our first visit for many years on April 13 it was indeed a great thrill to step out of the car and see the water glistening amongst the trees and hear the babble of the waterfowl right across Black Flat. Here seated on a log at the edge of the water near where the former ranger, Rudd Campbell, had a water trough in the dry years, we did an hour count; details are as follow:

Black Flat, Wyperfeld National Park,

April 13, 1977. — Fine, warm and sunny with south breeze. 2.10 p.m. to 3.10 p.m. Henry Hobson, Roy and Vera Wheeler. Birds in order of sighting . . .

Coot, 200; Grey Teal, 150; Little Grebe, 30; Little Pied Cormorant, 60; Black Cormorant, 1; White Cockatoo, 25; Brown Treecreeper, 3; Mountain Duck, 9; Black-tailed Native-hen, 6; Starling, 2; Tree Martin, 30; Grey Thrush, 1; Raven, 16; Spiny-cheeked Honeyeater, 1; Chestnut Teal, 1; Magpie Lark, 2; White-plumed Honeyeater, 12; Black Swan, 6; Little Corella, 60; Peaceful Dove, 1; White-faced Heron, 1; Black-fronted Dotterel, 2; Galah, 6; White-rumped Miner, 4; Grey Butcherbird, 1; Red Wattle-bird, 2; Striated Pardalote, 2; Pied Cormorant, 1; Mallee Ringneck, 2; Dusky Moorhen, 1; Scissors Grinder, 2; Wedge-tailed Eagle, 2. Total — 32 species and 639 individuals.

The next day we visited Lake Brambruk and here seated on a log overlooking this lake, with water for only the fourth time in a century, we did an hour count. All birds seen and heard within binocular range from the one position. Details are as follow:

Lake Brambruk, Wyperfeld National Park, April 14, 1977. Fine, warm and sunny. 11 a.m. to mid-day. Eileen McNamara, Roy and Vera Wheeler. Birds in order of sighting: Coot, 200; Black-backed Magpie, 2; Mallee Ringneck, 6; Grey Teal, 300; White-faced Heron, 30; Spurwinged Plover, 4; Black Duck, 2; Little Grebe, 50; Black Swan, 250; Wood Duck, 50; Emu, 7; Red-kneed Dotterel, 2; Grey Thrush, 6; Raven, 20; Magpie-lark, 8; Little Pied Cormorant, 20; Mountain Duck, 4; Wedge-tailed Eagle, 4; White-plumed Honeyeater, 12; Striated Pardalote, 4; Silver Gull, 3; Tree Martin, 1; Black-fronted Dotterel, 2; White Cockatoo, 6; Galah, 20; Yellow-billed Spoonbill, 5; Jacky Winter, 6; Hoary-headed Grebe, 6; Grey Butcherbird, 1; White-rumped Miner, 6; Spiny-cheeked Honeyeater, 4; White-eyed Duck, 20. Total — 32 species and 1061 individuals.

P.S. — Black Flat dried out in the spring of 1977 and Lake Brambruk in early 1978. When will the water come again? A big question.

FAIRY TERN RECOVERY After 12 Years

by JACK WHEELER

On 5 February, 1978, Mr David Robertson, President of the Bird Observers Club, found a wet and bedraggled Fairy Tern on the Werribee Spit; on catching the bird, he found that it was banded and on conferring with the Secretary of the Australian Bird Banding Scheme, C.S.I.R.O. Canberra, found that the bird had been banded by myself on 28 January, 1966 at the Spit in Stingaree Bay, as a chick only a few days old.

This bird had survived a few days over 12 years, quite an age for such an active small bird. I have received no further information as to whether the bird was dried out and released.

My first bird-banding of Fairy Terns commenced as far back as January, 1962, when quite a large rookery was operating at Point Henry; 67 nests were pegged and each numbered. The rookery was visited every second day, soon after daylight — a task at which I was assisted by Mr Col. Gibson, now on the staff of the University of Fiji.

On each visit the contents of every nest were recorded and details of movements of any young that had left their nests were noted; banding of 103 chicks was undertaken during these visits. The project was carried out between 24 January and 14 February and the rookery was situated on a sandy foreshore near the northerly boundary of the Moolap Cheetham Salt Pans, within 1.5 kilometres of where the Alcoa works are now situated.

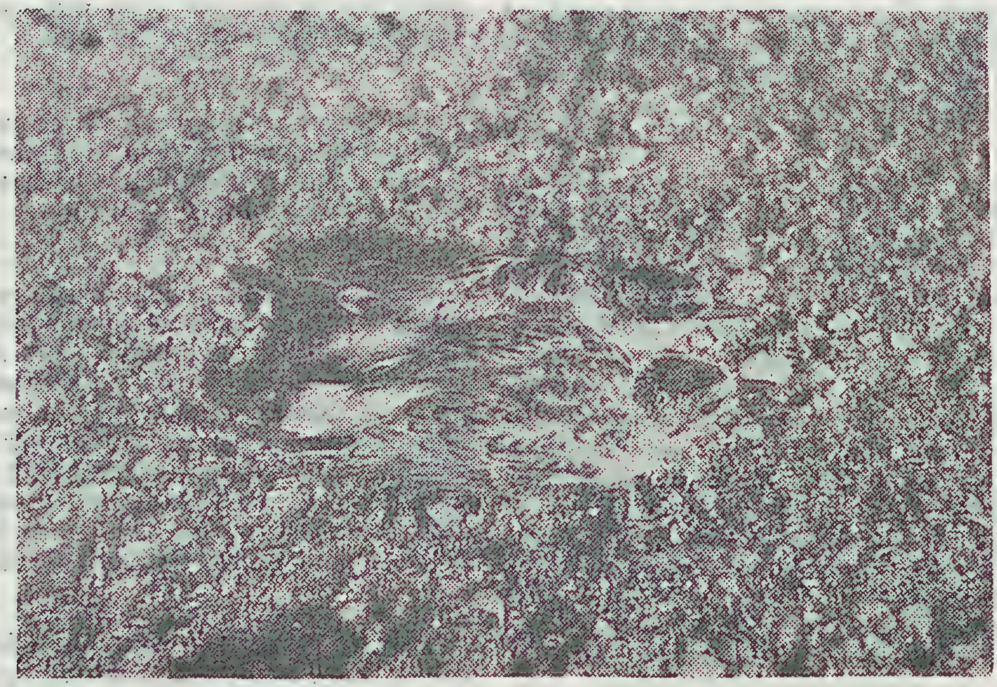
All 25 eggs found in nests were measured, the smallest egg being 30 x 23 mm, the largest 37 x 26 mm, and the average overall 35 x 25 mm.

During the following three seasons no breeding occurred at this particular location but it did occur further along the beach spasmodically.

Breeding resumed in Corio Bay (Stingaree Bay area) during January and February 1966, on a small sand spit off the north side of the Cheetham Salt Pans; access necessitates wading 500 metres in treacherous sludge which resembles quicksand. During this period 98 chicks were banded, and it was here that bird number 040-28370 was banded as a runner on 28 January 1966.

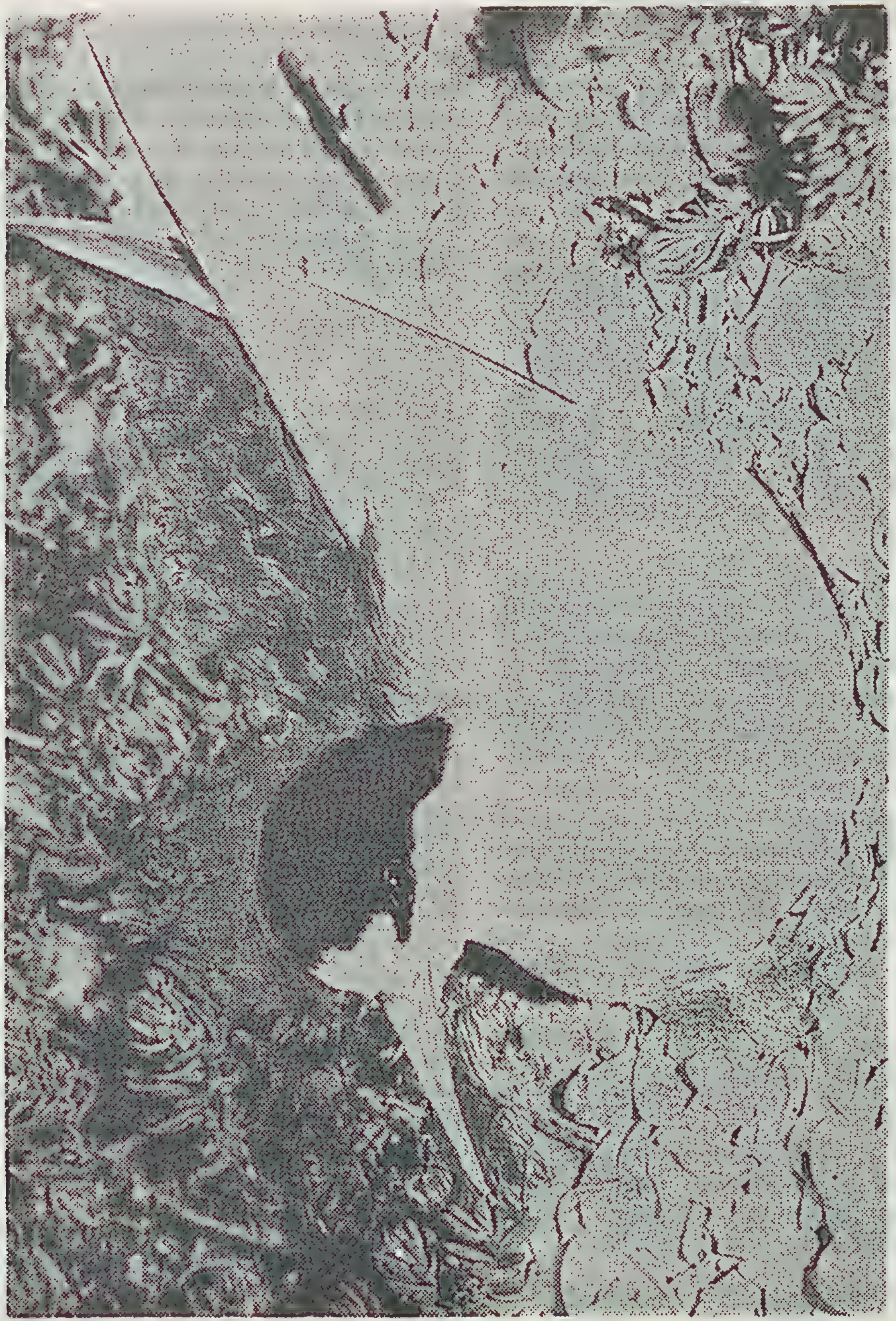
This rookery was much troubled by Silver and Pacific Gulls taking eggs and young, but low vegetation gave good cover for the chicks after they had left the nest. Most nests on this spit were of coarse sand and fine particles of shellgrit.

During intervening years little breeding was carried out in Stingaree Bay area and few birds were banded. However, a very strong colony built up on a sand spit opposite the "Creek" where sludge and silt was being deposited from local dredges. During the season 1975-6, some one hundred pairs nested but with only partial success, being visited by tourists accompanied in some instances by dogs, and also by dredging deposits. The following season another attempt to breed failed at Queenscliff. Of all the birds banded at the rookeries mentioned, the recovery of 28370 has been the only recovery of note between 1962 and 1978 — a span of 16 years.



Young of the Fairy Terns go to ground in perfect camouflage when danger is immenent

Photo by Jack Wheeler, on sandy beach near Pt. Henry



Adult Fairy Tern, on nest, so well camouflaged that bird blends perfectly with shell on sandy beach and succulent foliage in the background   Photo at the Spit, Moolap by Ken Stepnell

PRESIDENTS REPORT

In presenting a report for the year 1977, I wish to record my thanks and appreciation to everyone who has supported and helped the club during the 12 months.

The main burden of activities is carried by members of your Committee and I wish to express my gratitude to them for the increased amount of work which they have willingly undertaken during the year. Also there are many people not on the committee who work quietly and reliably for us at regular tasks or as required. Their efforts and value to the club are recognised and appreciated.

The attendances at the monthly meetings and excursions indicated that our syllabus for the year had interest and variety. The number of members at our camp-outs is being maintained and perhaps with a little more organising, more work can be achieved without loss of recreation.

On 1-2 October, 1977, we were host club for the W.V.F.N.C.A. meeting and camp-out. This camp, efficiently organised by Mr Ted Errey, was at Staughton Vale school and excursons were conducted into areas of the Brisbane Ranges.

In addition to the monthly meetings, excursions and camps, most of which are reported and recorded in the Newsletters and Geelong Naturalist, we combined with the S.G.A.P., Geelong Group, to conduct a reasonably successful 4-day Nature Show in the Myers Street Guide Hall during October, 1977.

Live specimens proved a great attraction. The reptiles were supplied by Peter Tremul, Peter Eastgate and David King's family, while the Commonwealth Serum Laboratories loaned two Sydney Funnel-web spiders and the Fisheries and Wildlife Department, Serendip, assisted with a lively potoroo and a docile frogmouth.

We had a wonderful response from everyone who was asked to assist at the show, but I feel two members deserve special mention for the time and effort expended. Mr. Ted Errey provided and manned a plant propagation and information stand as well as organising the schools publicity, attendances and poster competition. He made a collection and display of Brisbane Ranges plants and assisted with the collection of marine life. Ted then topped off a great effort by unwittingly providing cover and warmth for a whipsnake when he was on overnight duty at the show. Mr Stan Rowe arranged printing, set up a large geology display, loaned two excellent films and, when power restrictions persisted, obtained and assisted in the installation and operation of lighting and power plants. His efforts avoided cancellation of the show and saved us from probable financial loss.

Mrs Beryl Campbell again permitted the use of her home and garden for a very successful fete. Sincere thanks to Mrs Campbell and to Mr Jack Wheeler and all the helpers. And let us not forget the donors and buyers.

The Australian Natural History Medallion for 1977 was awarded to Mr Jack Wheeler. His efforts and achievements relating to this award have been recorded in the Geelong Naturalist, Vol. 14, No. 3. At our general meeting in December, 1977, we made Jack an honorary Life Member of this club — a well deserved reward for services rendered.

During the year, Mrs V. Dedman became our representative on the You Yangs Forest Park Management Committee. Val is our first "official" representative although members have served on this committee for many years.

Under the leadership of Mr Ted Errey, the Botany group continued their work identifying and listing plants in various areas. Many requests for advice, information and assistance are handled by the group members. A new study course commenced in March, 1978 conducted by this valuable and effective group within the club. We should have more groups like it — birds, insects, marine life, etc.

Finance, of course, is the subject of a separate report but, as your committee has reluctantly had to recommend substantial increases in subscriptions, I would just like to say two things. First, it is only the second increase in 16 years and the adult membership fee is still only the equivalent of 54.5 cents per meeting. Second, I consider that subscription revenue should cover all the normal administrative costs of the club and that funds raised from special efforts should be directed to specific projects such as a permanent headquarters and/or clubrooms.

We are becoming involved more and more in land use and conservation matters. Irrespective of size, all such matters are important but, this year, the largest and most important has been the L.C.C. Corangamite Study Area, and automatically the name of Trevor Pescott comes to mind.

Trevor Pescott not only prepared our original and subsequent submissions on the area, but also covered the area for the V.N.P.A. and assisted other organisations with their submissions. Since the L.C.C. recommendations for the Corangamite area were published, Trevor Pescott, Mrs Joan Lindros and Tony Woolford, acting as a sub-committee of the Geelong Environment Council, have been in the forefront of the continuing struggle to save as much as possible of the Otway Ranges.

All this required numerous meetings, deputations, much travelling (both car and air) and a tremendous expenditure of time and energy. At the same time, Trevor continued to cope with his normal editorship and committee activities. It has been a remarkable effort and we are heavily indebted to him and to Joan Lindros and Tony Woolford.

There have been many other conservation and preservation matters dealt with throughout the year. It requires constant vigilance by everyone to be aware of what is happening and to try and do something before it is too late. These problems and pressures will increase and we must organise and develop our resources in the club to better cope with these future demands. We want to commence this organising and development during 1978. Your Committee cannot do it alone. Will you help us become more efficient and effective?

GEOFF MATHISON

TREASURERS REPORT

Once again we have ended the financial year with a substantial credit balance, although our total expenditure exceeded our income.

Total bank credit stands at $1766.84, made up as follows:

		1976-77
General A/c	$1156.92	($1069.94)
Excursion A/c.	59.92	(117.94)
Deposit Stock	550.00	(350.00)
	$1766.84	($1537.88)

This represents an overall increase of $228.96.

Our main source of income is, and should be, from subscriptions, which raised $1220.60. However, this does not nearly cover our running expenses, which during 1977-78 amounted to $4940.55, and we have had to supplement our income in various ways. In view of this we are recommending a general doubling of subscription rates, with a magazine subscription becoming $5.00 per annum.

The lateness of payment of many membership dues is a great inconvenience. This year, in January, 127 overdue notices were sent out to one-quarter of the membership — and since then over $300 in subscriptions has been received. I would remind you that membership fees are due and payable on 1st April each year.

Our greatest single expenditure, $1228.00, was for the printing of the "Geelong Naturalist". We have had problems and hope to improve the format and distribution of the magazine, but we must expect further price rises. Printing of other items such as the monthly news-sheet, syllabus cards, receipt books, envelopes and paper, took $536.00. We have had to face increases in rent, affiliation fees to other natural history organisations, postage expenses and insurance.

The club donated $100 to the Cliff Beauglehole Appeal, made up of $43.33 from individual members and the residue of $53.67 from club funds.

We are most grateful for the many donations we received from members during the year, some of them substantial. These added $288.00 to our funds. The sale of publications brought in $112.07. Posters were particularly popular with members. We hope to increase the range of books, etc., available, as a service to members.

The most successful special effort, financially, was the fete. One day's work netted $654.87, which was very welcome, since at that time funds were particularly low. We should not have to rely on the fete to cover running expenses. A fete, if held, should be for a specific purpose. The Nature Show brought in $257.86, which was very little for four days' continuous operation. The Nature Show was not intended primarily to be a money-raising event, but to publicise natural history, but I feel the financial return did not reflect the tremendous effort that went into the organisation of the show.

Photoflora '78 will provide a welcome increase to our funds of $55.97, though this event was not as well patronised as Photoflora '76.

Present financial membership is as follows:—

Single Adult …… ……	163	(164 76-77)
Joint Adult (49) ……	98	(110 76-77)
Family (32) …… ……	128	(128 76-77)
Junior/Student ……	24	(23 76-77)
	413	425

Subscribers to "Naturalist" — 48.

Of these 32 were supporting memberships and 47 have the news-sheet posted to them regularly. We also send the news-sheet to the 19 other member clubs of the Western Victorian Field Naturalists Clubs' Association.

We have added 52 new members and two new magazine subscribers to our lists during the past year, so we have in fact lost many old members, some through resignation or death, but mostly through lapse of payment of subscriptions.

During the year we transferred $100 from the general account and $100 from the excursion account to deposit stock and the higher interest earned there brought in $38.34, which is held in our excursion account.

Account No. 3 is for the management of Mr Jack Wheeler's brochure, *The Care of Sick, Injured and Orphaned Native Birds and Animals.* Donations of $877.43 were paid into this account during 1977-78 and payment of $1159.50 made for the printing and distribution of 15,000 copies. $1461.62 remains in this fund.

I would like to thank my assistants, Mrs Betty Quirk and Mrs Muriel Macauley. Without their help the treasurer could not cope with business at the monthly meetings. My thanks also go to my auditor, Miss Jean Hoggart, for her help and advice.

As I relinquish the post of treasurer I would like to thank all those who have supported the club over the past four years. Wth inflation and rising costs it has not always been easy to make ends meet, but our financial situation is still reasonably healthy and few similar clubs can boast a financial membership of over 400. I wish the incoming treasurer similar success.

VALDA DEDMAN

Hon. Treasurer

BANK RECONCILIATION STATEMENT TO 16/3/78

General Account

Bank Balance as at 21/3/77	$1018.54
Less unpresented cheques numbers 291, 299	10.00
	$1008.54
Unentered credit 18/3/77	51.40
	$1059.94
Receipts for 12 months to 16/3/78	4940.55
	$6000.49
Expenditure for 12 months to 16/3/78	4886.07
	$1114.42
Unpresented cheques numbers 122, 124, 129, 130, 131	42.50
	$1156.92
Unentered credit 16/3/78	147.97
Bank Statement	$1008.95

Balance Income over Expenditure 1977-1978 — $54.48.

Excursion Account

BANK RECONCILIATION STATEMENT TO 16/3/78

Bank Balance as at 21/3/77	$117.94
Receipts for 12 months to 16/3/78	489.28
	$607.22
Expenditure for 12 months to 16/3/78	547.30
Bank Statement	$59.92

Expenditure exceeded income by $58.02 1977-1978.

Account No. Three

BANK RECONCILIATION STATEMENT TO 16/3/78

Bank Balance as at 21/3/77	$1677.71
Unentered credit at 21/3/77	12.00
	$1689.71
Receipts for 12 months to 16/3/78	931.41
	$2621.12
Expenditure for 12 months to 16/3/78	1159.50
Bank Statement	$1461.62

Expenditure exceeded income by $228.09 1977-1978.

GENERAL ACCOUNT

RECEIPTS

Subscriptions	$1220.60
Donations	288.00
Donations — South Barwon Voucher Scheme	69.00
Sale Publications	341.81
Interest	16.67
Fete 1977 (additional)	30.00
Fete 1978	654.87
Nature Show	1958.80
Photoflora	167.47
Beauglehole Appeal	46.33
C.C.V. Raffle	132.00
Sundries	15.00
	$4940.55

EXPENDITURE

Printing—	
Geelong Naturalist	$1228.00
Other	536.40
Postage	157.72
Petty Cash	189.00
Affiliation Fees	145.00
Rent	162.00
Publications	229.80
Insurance	78.43
Nature Show	1700.94
C.C.V. Raffle	132.00
Beauglehole Appeal	100.00
Transfer to Deposit Stock	100.00
Sundries	126.28
	$4886.07

EXCURSION ACCOUNT

RECEIPTS

Bus — Mt. Cole	$255.47
Accommodation — Baw Baw	192.50
Interest	2.97
Interest from Deposit Stock	38.34
	$489.28

EXPENDITURE

Trans Otway — Bus to Mt. Cole	$266.00
Accommodation — Baw Baw	181.30
Transfer to Deposit Stock	100.00
	$547.30

DEPOSIT STOCK

RECEIPTS

B/F from 1976-77	$350.00
From General Account	100.00
From Excursion Account	100.00
	$550.00

Interest $38.34 transferred to Excursion Account.

ACCOUNT NUMBER 3

RECEIPTS

Donations to Brochure	$877.43
Interest	53.98
	$931.41

EXPENDITURE

Printing	$1050.00
Freight	2.00
Postage	68.50
Injured Bird Fund	8.50
Sundries	30.50
	$1159.50

Auditor: Miss J. Hoggart.

MEETING NOTES

The club produces a monthly Newsletter which is available at each meeting; it contains news of the meetings, excursions, reports, correspondence and other items of interest. The Newsletter is distributed to members who attend the meetings or who are prepared to pay for postage ($2 p.a. at present); but since it does contain many reports of interest to all club members, it has been decided to extract selected items each month and publish them in "Geelong Naturalist."

The following includes notes from Newsletters 147 (March), 148 (April) and 149 (May).

Correspondence received at the February committee meeting included:

F.N.C.V. — Nat. History Medallion.
G. Beaton — on fungi

Mrs. S. Venters — Craft Festival at Bannockburn.

State Rivers — Lake Merrimu project.

N.P.P.S. — Photoflora '78.

Alex Fisher — Annual meeting of the W.V.F.N.C.A.

Native Fauna Conservation Society — Newsletter.

I.C.I. Project Pt. Wilson

Along with many other conservation organisations, including R.A.O.U., Bird Observers' Club, Field and Game Association, Geelong Environment Council and C.C.V., we have lodged an objection to the rezoning of the land from agricultural to industrial. Our main concern lies in the possible damage to the Spit and its bird life through the building of such a large complex on the point. Birds possibly fly over here in a regular movement from the Spit to Avalon salt works, to Point Henry and to the Western District swamps. We want adequate safeguards built into the project to prevent damage.

Carp

Messrs. Pescott and Gayner assisted members of the Fisheries and Wildlife Division, and Field and Game Association in netting for fish in Reedy Lake. The first attempt this February was with a drawn net in the shallows at Fitzgeralds Road entrance where small fish only were caught, mainly Common Galaxias, Flat-headed Gudgeon, Pigmy Perch, Mosquito Fish and small Golden (or Crucian) Carp. The following weekend five set nets were used, and the tally included over 50 Redfin, 3 Tench, 1 Brown Trout, 1 Mullet — and one large European Carp.

APRIL NEWSLETTER No. 148

General Meetings

At the March 7 meeting of the club, we were treated to some superb photographs taken under the sea by Mr. Graham Stevens. We saw corals, nudibranchs, tube-worms, fish, crustaceans and many other animals all in delightful color; it was, to most of us, a new and strange world, where there are no flowering plants or birds, but brilliant underwater marine equivalents.

Excursion to Melba Gully (March 19)

Leader: Betty Quirk. Weather — a fine day with stiff breeze.

The convoy consisting of 15 cars travelled to Colac, then via Gellibrand on to Melba Gully. After an early lunch we walked through the fern gullies, where the different ferns were explained. The ranger, who is new — coming from Bairnsdale — asked the club if we could help him with identification of plants, so the botany group have agreed to do so on April 5th.

Leaving Melba Gully, we came home by Chapple Vale over a road that not many of the party had been on before, and all were impressed by the fern gullies and heathlands. Afternoon tea was at Crinoline Creek, where the forked sundew was observed; birds were fairly scarce.

Parker River Campout (March 11-13)

Campsite: Parker Ridge Road, opposite the Snowy Track.

It was the weather more than anything else which created a lasting impression on the many club members who camped over the two nights — Saturday was hot, and at night a cool change brought winds roaring up the valleys. Sunday was wet early, but fine in the afternoon; night gave up a long and lively electrical storm with some rain and a great deal of thunder and lightning. Monday was, thankfully, quite pleasant!

Birds were not plentiful, with only about 30 species being recorded; mammals observed were Ring-tailed Possum, Black Wallaby, Dusky and Brown Phascogales and Bush Rat. Fish which were caught in the Parker River by Stuart Southcombe and Paul Chaplin were Galaxias sp; they have been forwarded to the National Museum for identification.

Correspondence received at March committee meeting included:

I.C.B.P. (2): Reports.
S.G.A.P. — Thanks for their share of Nature Show proceeds.
G.R.C. — I.C.I. Avalon (receipt of our objections to rezoning).
The Buloke — Journal of the Horsham F.N.C.
Marine Studies — Journal of Aust. Marine Studies Association.
Denise Allen — Query on Casuarina stricta (Mr. Wheeler is to invite Ms. Allen to O.G.N.R. and Bellarine Peninsula.
City of South Barwon Sporting Co-op. — We are to inquire further for more details.

Vale John Agar

It was with deep sadness that members learned of the death of Dr. John Agar. A foundation member of the club, he earned the respect and affection of all other members by his courteous manner and his charming personality; an expert anthropologist, his occasional lectures and modest descriptions of his geological collection were a delight.

Our sincere sympathy is extended to Mollie and their family.

(T.W.P.)

MAY NEWSLETTER No. 149

April 4 — A.G.M.

The annual general meeting involved committee elections, setting of subscriptions and other club details that were finalised successfully. A members' night followed the close of the formal; the speakers were Dianna Primrose: trip to Katmandu; Arthur Chapman: movies of early club excursions; Jack Wheeler: flight over Antarctica.

Excursion to Point Edwards (April 16)

In fine weather, a short stop was made at Lake Lorne, Drysdale, to observe the water fowl before proceeding to Point Edwards State Faunal Reserve. Both areas offered many interesting observations of birds as listed.

A number of interesting botanical items were seen, including a large amount of Wire Mistletoe, which afforded a first class view at close quarters of a pair of feeding Mistletoe Birds.

On the sea-shore several of the party were able to observe a 1.5 metre Wobbegong or Carpet Shark making its way leisurely through a large patch of Zostera (eel grass) in about 150 mm of water. It was possible to observe its markings quite distinctly. A great deal of Conjevoi was found on the shore and several unusual egg masses were found in the sand, exposed by the low tide. These gelatinous masses were of an elongated bulbous shape with a thin extension embedded in the sand to a depth of about 180 mm. They contained many minute eggs and were probably the eggs of some species of mollusc.

Another unusual sighting was that of a Swimming Anemone, probably Phlyeteracti sp These do not attach themselves to a substrata but are free swimming at all stages of the life cycle.

Bird List

Lake Lorne — Black Duck, Black Swan, Eastern Swamp-hen, Little Grebe, Coot, Straw-necked Ibis, White-necked Heron, Banded Dotterel, Mud-lark, Spur-winged Plover.

Point Edwards: Mistletoe Bird, Silver Gull, White Egret, Spur-winged Plover, Little Pied Cormorant, Little Black Cormorant, Pied Cormorant, White-faced Heron, Pied Oyster-catcher, Pacific Gull, Crested Tern, Fairy Tern, Pelican, Royal Spoonbill, Raven sp., Banded Dotterel, Red-capped Dotterel, Skylark, Hoary-headed Grebe, Sandpiper (species not determined), Starling, Blackbird, Sparrow, Turnstone, Silvereye, Yellow-winged Honeyeater, Welcome Swallow.

(D.F.K.)

Correspondence received at the April meeting included:

N.R.C.L. — Invitation to hear Dr. Jim Willis.

Native Plants Preservation Society — Thanks for Photoflora.

Mr. Rob Watkins — Acceptance as speaker.

Bendigo F.N.C. — Notice of ball.

City of South Barwon — Notice of ball and disco night.

Geelong Regional Comm. — Objection hearing — I.C.I. rezoning at Pt. Wilson.

Work stall group — Trading table.

I.C.I. Rezoning at Pt. Wilson

Concern is felt about the I.C.I. site proposals and their likely effect on bird life in the area. Our objections are based on the interruption to flight paths and the effect of emissions from petrochemical production on the ecology of the Spit area. The Conservation Committee is to meet on Friday, 28th April at the Belmont Primary School to prepare the club's submission for the objection hearing. Mr. Mathison is to represent this club at the hearing on May 5. Other objections have been lodged by the B.O.C., R.A.O.U., C.C.V., Geelong Environment Council, Fisheries and Wildlife, Field and Game Association and others.

VORG Conference July 21-23, 1978: Techniques of Research in Ornithology

The Victorian Ornithological Research Group is holding a conference in Melbourne over the weekend of 21-23 July, 1978, entitled "Techniques of Research in Ornithology". The conference is open to anyone interested, and further information and registration forms are available from VORG Conference Secretariat, P.O. Box 203, South Melbourne, Victoria 3205. As numbers are inevitably limited, registrations will be accepted in order of application. Speakers and topics already arranged at the time of going to press are:

Mr. Claude Austin — Nest finding.

Mr. Peter Balmford — Ornithology and the law.

Professor J. M. Cullen and Mr. David Paton: Setting up research projects.

Mr. Howard Jarman — Principles of Bird Identification.

Mr. Allan McEvey — The Ornithological collections of the National Museums of Victoria.

Dr. G. F. Van Tets — Bird behaviour.

In addition, a panel consisting of Ms. Margaret Blakers, Mr. Marc Gottsch, Mr. Len Jackson and Ms. Pauline Reilly will answer questions on the Atlas of Australian Birds, bird photography, recording bird calls, and bird banding; there will be an excursion to the La Trobe University Wildlife Area, led by Dr. Richard Zann of the School of Biological Sciences of that university; a series of short talks on current activity in ornithological research is being arranged; and it is hoped to hold an exhibition of works by wildlife artists on the Friday evening in conjunction with Conference registration.

DARTER AT BALYANG

(by Trevor Pescott)

The large flocks of Little Pied, Black and Little Black Cormorants at Balyang Sanctuary had an unusual companion recently — a Darter was noted there on 30 April 1978.

A rare visitor to the Geelong district under any circumstances, it no doubt came to join the cormorants which are here in huge numbers and use Balyang trees as a roosting area.

BOOK REVIEW

50 WALKS IN THE GRAMPIANS

by TYRONE T. THOMAS

Experienced bushwalker, Tyrone T. Thomas (author of "120 Walks in Victoria"), has turned his attentions to the Grampians, that rugged and beautiful system of ranges in Western Victoria.

Tyrone Thomas turned to the Grampians and re-walked the whole area. The fifty walks that he has selected are graded into "easy", "medium" and "hard" to meet every need and track-notes have been carefully compiled to accommodate the requirements of both experienced and inexperienced bushwalkers. There is a special Grampians background information section detailing geology, history, flora and fauna, resources and their management, local accommodation, picnic and camping facilities and notes on main scenic features.

The book includes a general walks location map and individual area maps and every walk is complete with full track-notes, clear navigation advice, notes of interest and pointers that will help walkers appreciate the unique Grampians bushland.

Particular attention is given to first aid, safety, food and equipment and common sense in the bush. For those who wish to extend one-day walks into longer bushwalking excursions there are many interesting link-up suggestions.

Australian recommended retail price $3.50.

(House Review/T.W.P.)

JUNIOR PAGES

Junior members of the Geelong Field Naturalists' Club meet at 7.30 p.m. on the first Tuesday night of each month, at McPhillimy Hall, St. Georges Church, La Trobe Terrace.

The meeting lasts about 45 minutes, finishing at 8.15 p.m., which is just after the general meeting has begun.

Juniors meet in the kindergarten room at the centre of the hall building.

Mr. Ian Woodland and Mr. David King are the two main organisers, but they have several other regular helpers to assist in the arranging of the meeting, seating, distribution of Newsletters and Survival magazines and so on.

Guest speakers are usually on hand to talk about various natural history subjects, to show slides or films, and to bring in all sorts of live exhibits.

Subjects to be described later this year will include:

ACACIAS (wattle trees): What they are, how they grow, what uses can be made of them, what their flowers and seeds are like.

FROGS AND TOADS: What the difference is, how they live, what they eat, where to find them.

PREHISTORIC ANIMALS: What they looked like, how large, what they ate, why they died out.

SALTWATER FISHES: What species are found here, what do they look like, how do they breathe, what do they eat?

(A full list of syllabus subjects is shown on the Syllabus Card 1978-79 which all juniors should receive.)

And while on the subject of "how and why" — do you know: how do fish hear?

With their ears! When you look at a fish you can't see its ears because they are under its skin. They are in spaces on each side of its head. Fish have no outer ears or eardrums to catch sound vibrations. Instead, the vibrations are carried to their inner ears through their bodies. Most fish cannot hear nearly as sharply as you do. But they can hear sounds that are made in water, and very loud sounds made above the water. One thing a fish might hear under water is the noises that other fish make by rubbing fins together, or vibrating their air bladders. These noises sound like drumming, scraping or grunting. Fish may use them for attracting a mate, alarm calls, or to help them stay together in schools.

We have seen flocks of Ibises in flight over Geelong. Why do they fly in a V formation?

It saves energy for the ibis. When an ibis flies, its wings churn up the air, leaving a current behind. If an ibis flies in this current, it can get a lift. When ibises fly in a V formation, each bird is in just the right position to get a lift from the bird ahead. This makes less work for all the ibises, except the leader. Often during their flight several take turns being the leader. Ibises aren't the only birds that fly in a V. Some others are ducks, swans, gulls and cormorants.

Do toads cause warts?

No. Warts are caused by a virus. The old superstition that toads cause warts may have started because toads have warty-looking skins. Also, some toads urinate if you grab them. If this urine gets into a scratch on your hand, it can burn and sting. Some toads have a poison on their skins that can irritate your skin if you pick them up, but neither the poison nor the urine cause warts.

How can scientists tell which dinosaurs were meat eaters and which were plant eaters?

Scientists are clever detectives. From just a few fossil parts of a dinosaur they can figure out how big it was, how it looked and what it ate. Fossil teeth tell scientists the most about what it ate. Meat eaters would have needed long, sharp teeth. The tyrannosaurs had teeth 15 cm (6 inches) long. They were perfect for tearing flesh. But the enormous brontosaurs had small teeth that were only strong enough to cut the soft stems of plants. The shape of an animal's body also gives scientists clues. Plant eaters often have very bulky bodies which hold very long intestines.

These are needed because plant material is hard to digest and must stay in the body for a long time. Do you think a scientist could tell what you ate from your teeth and bones?

Do frogs shed their skins?

Yes. So do toads and all other amphibians. When a frog grows, its skin doesn't grow with its body. Instead, the frog grows a new skin underneath the old one. Finally the old skin is too tight. The frog starts to shed by puffing itself up with air, shrinking, then puffing itself up again. At last the old skin splits down the back. Then the frog wriggles until it pulls its front feet free. This skin comes off just like a glove. Next the frog uses its front feet to pull the old skin from the rest of its body. As the frog sheds, it may shove the old skin right into its mouth — and eat it!

Do you have other questions to ask? Why not come along to the Junior meeting and ask Mr. Woodland or Mr. King? If they don't know the answer, they will find out for you.

COMING EVENTS

JUNE

6 General Meeting. Mr. Eric Bound, Groote Eylandt.
10–11 Campout — Otways.
18 Excursion. Lerderderg Gorge.
24–25 Working bee. Tree-planting, You Yangs.
27 Committee meeting.

JULY

4 General meeting. Mr. and Mrs. Ralph Keller, Little Desert.
16 Excursion. Point Lonsdale, Lake Victoria Swamp.
22 Working bee. Tree-planting, Belmont Common — 1.00 p.m.
25 Committee meeting.

AUGUST

1 General meeting. Mr. Bob Allen, Spiders.
12–13 Campout — Brisbane Ranges.
20 Excursion. Ocean Grove, Grass Tree Reserve, Torquay.
22 Committee meeting.
26–27 Western Victorian Field Naturalists' Clubs Association.

JUNIOR FIELD NATURALISTS' SYLLABUS,

June: Acacias.
July: Frogs and toads. Activity — Star gazing (10 min.).
August: Wildflowers. Poster competition, "Save our Wildflowers."

OFFICE BEARERS 1978 79

President:
Mr. Geoff Mathison, "Bona Vista", Winchelsea.
(Phone 67 2355)

Immediate Past President:
Mr. E. G. (Ted) Errey, 3 Leonard Street, Belmont.
(Phone 43 2848)

Vice-presidents:
Mr. Jack Wheeler, 72 James Street, Belmont.
(Phone 43 1200)
Mr. David King, 8 Truam Street, Portarlington.
(Phone 59 2609)

Honorary Secretary:
Mrs. Valda Dedman, 69 North Valley Road, Highton.
(Phone 43 2374)

Assistant Hon. Secretary:
Mr. Gordon McCarthy, 26 Fairbrae Avenue, Belmont.
(Phone 43 1826)

Honorary Treasurer:
Mr. John Ealey, Unit 3, 20 Peary Street, Belmont.
(Phone 43 4381)

Assistant Hon. Treasurer:
Mrs. Betty Quirk, Lot 2, Crimea Street, Drysdale.
(Phone 51 2996)

Honorary Editor:
Mr. Trevor Pescott, 4 Victoria Terrace, Belmont.
(Phone 43 4368)

Excursion Secretary:
Mr. Graeme Tribe, 92 Wyatt Street, Ocean Grove.
(Phone 55 2302)

Honorary Librarian:
Miss Leila Ramsay, 8/76 Barrabool Road, Highton.
(Phone 43 3661)

Committee:
Mr. Ian Woodland, 33 Grant Street, Newtown.
(Phone 21 6517)
Mr. Rolf Baldwin, 2 Kyle Avenue, Belmont.
(Phone 43 3763)
Mr. Geoff Gayner, Lot 80, Jenkins Drive, Lara.
(Phone 82 2182)

Auditor:
Miss Jean Hoggart.

Ken Jenkin —Print

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Hon. Editor,
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4 Victoria Terrace,
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SOME NEWCOMERS IN THE CENSUS

by TED ERREY

The vegetation of most districts of the State has changed greatly since the arrival of Europeans. The degree of change is variable, ranging from complete displacement of the native flora in many urban and farming areas, to the occasional intrusion of introduced weeds and grasses in the more isolated places where white man with his animals and crops has not yet exerted much influence.

Unfortunately, in the early days of settlement, all too little was recorded of the vegetation as it then existed. Where bushland has been cleared or grassland taken over, for dairying, cropping or grazing, scant evidence remains of the plant life that covered the Western District two hundred years ago.

In more rugged territory such as the Brisbane Ranges south of Ballan, the position is different. Though much timber has been taken from the ranges for various purposes, particularly for mining activities, and though the mining itself disturbed the terrain enormously, much of the original vegetation has been able to regenerate. It is unlikely that many species have been lost from the ranges as a whole. One such, perhaps, is Choristemon, a small heath shrublet about 15 centimetres high, described in the *Victorian Naturalist* in 1924 as a species endemic to the Brisbane Ranges, and rare then. But mining did not begin at Steiglitz till 1855, and Baron von Mueller, appointed Government Botanist three years earlier, would probably have visited the ranges before the rush. He was collecting at the You Yangs in November, 1853.

The work of botanists such as von Mueller in early years, and of Dr. J. H. Willis in more recent times, has provided fairly comprehensive lists of the vascular flora of the area, including a number of the grasses, thistles, clovers and other plants that have encroached because of human activity. Even so, the listing is far from complete. It is reasonable to expect that further exotic species will find their way into the ranges from time to time. Even natives from other areas may come in. Ferns, for instance, whose microscopic spores can be airborne for many miles, could establish themselves in damp, sheltered places.

In October, 1977, Mr A. C. Beauglehole, of Portland, who has been carrying out botanical surveys throughout Victoria for a number of years, particularly for the Land Conservation Council, began collecting in the Brisbane Ranges. With help from members of the Botany Group of the Geelong Field Naturalists Club, he gathered some 180 species during his weekend visit. Seven of these (five native) are not included in the National Parks official list for the Brisbane Ranges.

Since then, the local group has increased the list of identified species to 325. Of these, 46 are new to the official list, twelve of them being introduced plants. As most of this recent work has been done during summer months, the flush of spring flowering was missed. It is expected that the list will be considerably increased before next summer.

The official list includes six grevilleas and five mint bushes. We have found four grevilleas and two mint bushes. These should be reasonably conspicuous plants, particularly when in bloom, but they may be limited in extent. *Grevillea lavandulacea*, for instance, is mentioned by J. H. Willis (1972) as being of "restricted occurrence near Steiglitz". When it was seen there is not stated.

The high proportion of new listings, approximately 14 per cent., poses a number of questions. Firstly, how many of these are really new plants and how many were overlooked earlier? We do not know (at present) how long ago the official list was finalised, nor how closely the area was surveyed. Some of the additions are small and could be bypassed by the casual observer, but not by an experienced botanist. Others, however, are conspicuous, and must surely be newcomers. Bulrushes (*Typha* sp.) for example, are present along Stony Creek and the headwaters of Little River, and around Durdidwarrah Reservoirs, three well-separated areas. Yet they are so well established, particularly at Durdidwarrah, that they must have been there for years.

Five unlisted fern species are also growing in separate locations. Hard and Soft Water-ferns both grow close to a group of Rough and Soft Tree-ferns. The tree-ferns are listed, why not the water-ferns? Are they recent settlers in an environment made suitable by the taller species? And how did the tree-ferns establish? They flourish near the head of a gully just below where a brick-lined water channel crosses. On the higher side of the channel the gully is dry and no ferns appear. Below the channel the gully is wet, evidently from channel seepage, and at least six kinds of ferns thrive there. Did they begin from drifting spores, or were they planted, perhaps by early Waterworks personnel? A patch of coral-fern is growing close to a bitumen road. It could have been planted there. But several patches of Common Rasp-fern are found along Stony Creek where human assistance is less likely.

Human involvement is more feasible where isolated specimens of a plant appear. One example is to be found beside Bacchus Marsh Road in the northern end of the ranges. There grows a solitary Manuka (*Leptospermum scoparium*), usually restricted to the eastern Otways, Grampians and East Gippsland.

As explained earlier, the project to date has been a summer one, and as the preceding spring was very dry (less than 200 mm from August to December inclusive) most of the work has been confined to the streams, reservoirs and water holes.

Another conspicuous plant found along Stony Creek was Hazel Pomaderris (*Pomaderris aspera*). Some of these specimens are quite large. This is a common component of gully vegetation in the Otways and Central Highlands. A companion in those gullies, Musk Daisy-bush (*Olearia argophylla*), is listed for the Brisbane Ranges, but we have not yet sighted it. Both trees were probably common enough in these gullies 200 years ago.

Two other small but easily seen plants not yet officially listed have been found along the creeks. These are Small Loosestrife (*Lythrum hyssopifolia*), widespread throughout Victoria, and Self-heal (*Prunella vulgaris*), a purple flowered inhabitant of wet places in southern and eastern parts of the State, and temperate lands throughout the world. Self-heal is in the same family as mints and mint-bushes, rosemary and lavender. Another member of the family is Horehound (*Marrubium vulgare*), an introduced pest in many parts of Victoria, and present in the Brisbane Ranges, though previously unlisted.

Perhaps more important from the environmental point of view than the natives are the introduced species, comprising over 25 per cent. of the new listings. Whether this high figure is a true indication of the increase of foreign plants is doubtful. Of the 325 species on our list, 37 (or 11.4 per cent.) are not native. This corresponds closely with the official list of 475, of which 56 (or 11.8 per cent.) are not native. Our listings over the past few months, concentrated near water, have included picnic areas and roadside water holes, where fresh species are more likely to be introduced than in drier terrain. As rains bring new season's growth, exploration will extend away from established tracks, into less accessible spots, and the proportion of native plants should increase considerably. However, one must not forget that it is in the frequented areas where new species obtain a foothold. It is the extent and rate of spread from these initial bases that is of concern to the environmentalist.

BRISBANE RANGES FLORA

NOT ON OFFICIAL LIST

(*denotes Introduced Species)

FERNS

Blechnum minus (Soft Water-fern).
Blechnum wattsii (Hard Water-fern).
Culcita dubia (Common Ground-fern).
Doodia media (Common Rasp-fern).
Gleichenia microphylla (Scrambling Coral-fern).

MONOCOTYLEDONS

Calochilus campestris (Copper Beard-orchid).
Carex breviculmis (Sedge).
Carex fascicularis (Tassel Sedge).
*Dactylis glomerata (Cocksfoot).
*Ehrharta longiflora (Annual Veldt Grass).
Hypolaena fastigiata (Tassel Rope-rush)
*Juncus acutus (Sharp Rush).
Microtis biloba (Notched Onion-orchid).
Tricoryne elatior (Yellow Rush-lily).
Triglochin striata (Streaked Arrowgass).
Typha sp. (Bulrush).

DICOTYLEDONS

Acaena echinata (Sheep's Burr).
Calocephalus lacteus (Milky Beauty-heads).
Cassinia arcuata (Chinese Scrub or Drooping Cassinia).
Cassytha pubescens (Downy Dodder laurel).
Comesperma calymega (Blue-spike Milkwort).
Convolvulus erubescens (Blushing Bindweed).

Cotula vulgaris (Slender Cotula).
Desmodium varians (Variable Tic-trefoil).
Drosera pygmaea (Tiny Sundew).
Eryngium vesiculosum (Pricklefoot).
*Galenia pubescens (Carpet-weed).
Gnaphalium indutum (Tiny Cudweed).
Hydrocotyle foveolata (Yellow Pennywort).
Leptospermum scoparium (Manuka).
Lobelia alata (Angled Lobelia).
Lythrum hyssopifolia (Small Loosestrife).
*Marrubium vulgare (Horehound).
*Medicago polymorpha (Burr Medic — Trefoil).
*Melianthus major (Cape Honey-flower)
Mentha laxiflora (Forest Mint).
Olearia ramulosa (Twiggy Daisy-bush).
*Oxalis pes-caprae (Soursob).
*Plantago coronopus (Buck's-horn Plantain).
Polygonum minus (Slender Knotweed).
Pomaderris aspera (Hazel Pomaderris).
Pratia pedunculata (Matted Pratia).
Prunella vulgaris (Self-heal).
*Rorippa nasturtium-aquatica (Water Cress).
*Trifolium repens (White or Dutch) Clover).
*Vicia hirsuta (Tiny Vetch).

DECLINE OF CORELLA

by TREVOR PESCOTT

Easter 1977 I took the opportunity to travel into the western district of Victoria, going first to Port Fairy, then north to Hamilton, visiting several places of natural historic interest along the way — the Ralph Illidge Sanctuary, Tower Hill, Killarney reefs and the Byaduk basalt caves.

Bird life generally was interesting with a wide range of species seen, including swamp dwellers, bush birds, ocean inhabitants and grassland species.

One of the most interesting was the sighting, near Macarthur, of a flock of about 50 Long-billed Corellas — large white cockatoos easily mistaken for the more familiar sulphur-crested species which is so plentiful locally.

Seen in flight, two things distinguish the corellas from the sulphur-crested birds — they fly with faster, more regular and shallower wing-beats, and their voices, if not melodious, are softer in tone than those of their raucous cousins.

They differ, too, in that they have a much smaller, rounded crest, they have a pronounced blue eye-ring, a red face and on their throat and upper breast is a wide band of purplish-red coloring.

The flock seen at Macarthur was feeding on the ground, and through binoculars I could watch as they scooped divots from the ground, discarding them in a way that would alarm even a novice golfer.

Long-biller Corellas are ideally suited to this feeding method — the greatly elongated, pointed, narrow beak being an ideal "excavator".

Later I checked the area where the birds had been feeding, and found the patch of ground looking as though a fine rotary hoe had chipped the surface — and all around were the remains of onion-weed plants.

Long-billed Corella

Corellas feeding on onion weed bulbs.

Photos by Trevor Pescott

The corellas were performing a very useful function — digging and eating the bulbs of the plants which are of very little use to the farmer and a nuisance by using space and soil nutriments that would be better occupied by desirable pasture plants.

Corellas are unpopular birds, however, for the good they do is forgotten should a flock descend on a newly-planted cereal crop.

Poison set out illegally may kill some, but usually the toll includes magpies, ravens, ducks and many other bird species.

The use of poisoned grain is illegal, and, although in years past it has been occasionally undertaken in the Winchelsea area with disastrous results on many native bird species, it is not an effective method of selectively destroying any so-called pest species.

Under current wildlife laws, Long-billed Corellas are legally protected and they cannot be destroyed without specific approval of the Fisheries and Wildlife Division of the Conservation Ministry. To do otherwise is to risk prosecution and a severe penalty.

Long-billed Corellas are only slightly larger than their inland-frequenting cousin — the Little Corella which invariably features in any film demonstrating the natural environment of Australia's "Centre".

Unlike the Little Corella, the Long-billed species is quite rare and is found in restricted parts of our continent.

It occurs in a small area from the extreme south-eastern corner of South Australia, through western Victoria to Port Phillip and across the Murray River into south-central New South Wales.

There is also a small area of land along the West Australian coast south from Geraldton where they are found, and it is of interest to ornithologists to compare the eastern and western communities which are so widely separated on opposite sides of the continent.

Around Geelong corellas are rare, although small flocks may be seen near Winchelsea.

They were once present in the foothills near Anakie, but nest-raiding has decimated that isolated population so that few remain.

Charles Belcher, in "Birds of the District of Geelong, Australia" (1914), wrote of the corella: "Mr. Mulder assures me that he has seen large flocks of them at Bambra and that they have a chuckling call, very distinct from that of the common white cockatoo . . ."

According to Joseph Forshaw, in his superb book, "Australian Parrots", it is already a rare bird, and he believes that it is a declining species. "Initially the decline was probably brought about by increasing aridity and the accompanying spread of dried conditions . . . Early European settlements with its drastic land clearance may have accelerated the decline."

The Long-billed Corella is rarely found far from water, and the flock will usually adopt a routine of drinking at the waterhole early in the morning — even before daylight — then feeding throughout the day.

They will drink again at dusk, before moving into roosting trees to sleep.

Like the White (sulphur-crested) Cockatoo, the flock uses sentinels to keep watch as they feed, and these will raise the alarm in the event of an intruder entering the area.

Little seems to be known of their breeding behaviour, for although we know that they nest in hollows in trees, there is no detail of incubation, care of the young, work-share by the sexes, length of time to become fledged, and so on.

What is known is that the corella is described as the best "talker" of all of the cockatoos, and for this reason nest-raiding for young birds, although illegal, has caused a reduction to their population in some cases.

But, they are not very satisfactory aviary birds, having to be housed in steel-framed aviaries with heavy-gauge wire. They do not breed readily in captivity, although there are cases where there have been hybrids, with either Galah or Sulphur-crested Cockatoos, reared successfully.

The distant future of the Long-billed Corella does not seem as secure as one may wish it to be, however, so long as deliberate persecution of the species is prevented, the ability of the bird to survive natural climatic changes is something about which we can do very little.

* * *

MUD ISLANDS CAMP OUT

28-30th January, 1978

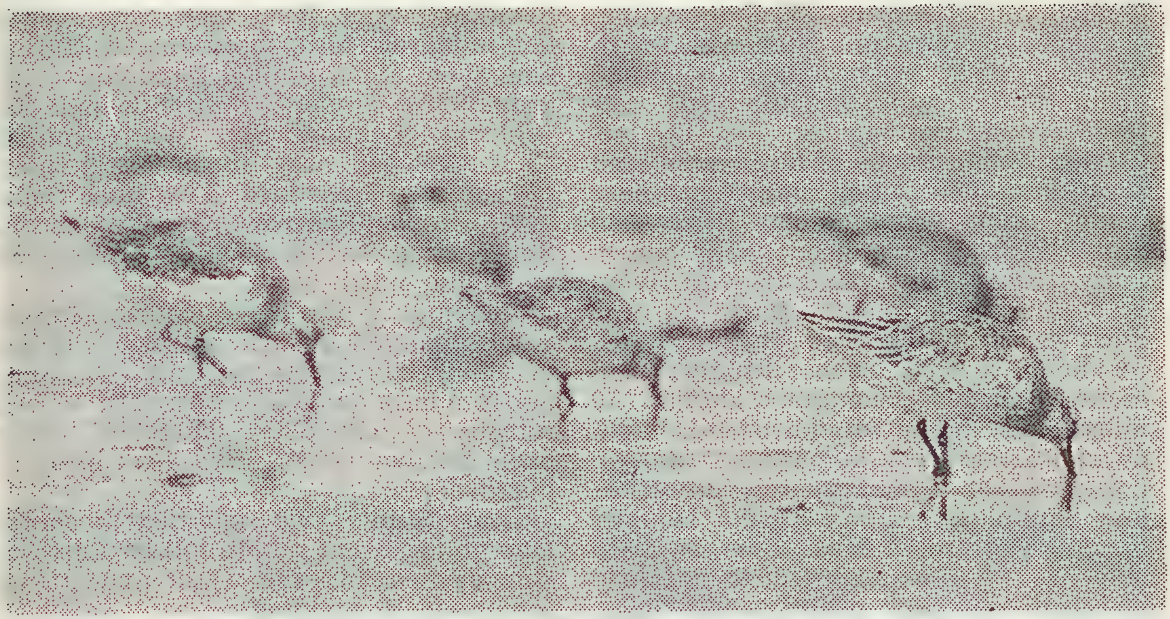
by GEOFF GAYNER

Eighteen members of the G.F.N.C. and Bird Observers Club attended; the weather was very windy and wet over the weekend, the wind blowing in from the south-west to south-east at 15 to 30 knots. Heavy cloud came over late on Saturday and remained all of Sunday; it rained heavily on Sunday night.

Some banding of Storm-petrels carried out Saturday afternoon on the nest colony; 33 chicks and 4 adults were banded, one adult still sitting on an egg. Five dead birds were also found in burrows. Out of 61 burrows checked 41 contained birds. The northern end of the rookery is being re-colonised at this time; the Horned Poppy seems to be creeping further north along the rookery. The colony on Leg-of-Mutton Island is being used, with several burrows containing young; adult birds were seen flying into burrows on Saturday night around 10 p.m.

The following list of birds covers 48 species seen over the weekend:—

White-faced Storm-petrel: About 6000. Australian Gannet: Several birds seen around island (2 fledgelings, 9 juveniles, 15 adults, on wedge light). Short-tailed Shearwater: Several birds seen close to island blown inshore by south-easterly wind; three beach-washed. Crested Tern: Relatively common,



Knots feeding on the mudflat

Golden Plover

Photos by Trevor Pescott

feeding young; approx. 200 flying young present. Silver Gull: Numerous, with young. Black Swan: Flocks of birds; about 150 in lagoon, and 100 birds scattered around the islands. Pied Oystercatcher: Small flocks of birds numbered 12 in total. One young runner seen near camp. Sooty Oystercatcher: Five seen around island, one near camp beach. Fairy Tern: Adults about 16 with flying young in nests found. Little Tern: 2 birds seen. Grey-tailed Tattler: Flock of about 45 birds seen. Ruddy Turnstone: Relatively common; about 250 individuals spread around island. Red-necked Stint: Very numerous. Mongolian Dotterel: Approximately 20. Curlew Sandpiper: Approx. 250. Double-banded Dotterel 2 birds seen on 28th January. Red-capped Dotterel: Fairly plentiful; one pair nesting, with eggs, near camp. Eastern Curlew: Fifteen seen flying over towards Swan Bay on Saturday, 28th; 3 flew back and landed in lagoon on 29th. 17 birds seen in lagoon. Great Knot: Approx. 40. Lesser Knot: Approx. 30. Bar-tailed Godwit: Approx. 20. Royal Spoonbill 19 seen in lagoon. Australian Pelican: 6 seen. Grey Teal: Flock of 20 birds in lagoon. White-faced Herons: About 12 birds around island. Arctic Skua: Six seen off island 28th. Pomarine Skua: A dark phase and light phase seen harrying Silver Gulls. Pacific Gull: Approx. six seen around island. Grey Plover: Approx. 36 seen. Eastern Golden Plover: Three birds. Eastern Common Tern: Approx. 40 individuals. Caspian Tern: About 40 adults and several flying young. Black Cormorant: Eight individuals. Little Black Cormorant: 12 individuals. Little Pied Cormorant: 20. Pied Cormorant: 20. Black-faced Cormorant: Six. Greenshank: Approx. 12 individuals seen near camp and lagoon at low tide. Swamp Harrier: Two seen over island, one immature bird. Spurwinged Plover: One seen. Sharp-tailed Sandpiper: Approx. 300. Skylark: Six: Starling: 12. Welcome Swallow: Six. White-fronted Chat: One pair near Storm Petrel rookery. Little Grass-bird: Two near rookery. House Sparrow: One pair seen. Spine-tailed Swifts: Seen on January 29 travelling north-west.

Banding White-faced Storm Petrel: Adults banded in mist net: 3. Number of young banded in burrows: 33. Number of adults banded in burrows: 4. Two retraps — 050-68504, 050-68507 (both birds banded 1977). Five dead birds in burrows.

Grass Skink: Two seen near rookery. One young black rabbit and two brown. One dashed into the water and stayed for about 10 minutes.

Two Coast Teatree still growing, 500 mm tall. More trees should be planted to help stabilise the island. Horned Poppy seem to be increasing on Western Island, Leg-of-Mutton Island and along the Airstrip.

TIMING GREBES' DIVES

(by Ira Savage)

A most interesting hour was spent by me last May observing two Hoary-headed Grebes (*Podiceps poliocephalus*) feeding about 18 metres offshore from Cunningham Pier.

Their efforts consisted mainly of diving and feeding under-water, and occasionally they surfaced with a morsel of food.

The time between diving and reappearing was between 20 and 23 seconds, and the surface time between dives between 6 and 12 seconds.

They would dive in this sequence between 10 and 15 times, before taking a break of about two minutes.

AN HOUR COUNT No. 26
ALICE SPRINGS, NORTHERN TERRITORY

by ROY WHEELER

Alice Springs first came under notice during the erection of the Overland Telegraph line from Port Augusta to Darwin 1870-1872. A fine water-hole was discovered on the Todd River by a surveyor (W. Mills) on March 17th, 1871 and he named it Alice Springs after the wife of Charles Todd, who was Postmaster-General and Superintendent of Telegraphs at that time. This waterhole was known to the aborigines as Turrara and it and the general area were important camping and ceremonial grounds of the Arunda tribe. The old Telegraph Station is still standing — about 3 km from Alice Springs — and is a major tourist attraction. At the station several plaques tell the history of the place and on one such plaque are the names of the eight men in charge over the 60 years it was in operation there, 1872 to 1932.

The station was closed on January 26, 1932, and the office removed to Stuart, a short distance away, and renamed Alice Springs. The story behind the construction of this telegraph line is most interesting. The distance from Port Augusta to Palmerston (now Darwin) was 1688 miles (2716 km) and the construction time 23 months and the completion date August 22, 1872, and the cost 38,000 pounds. Some 36,000 poles were used, about 20 to the mile. Three thousand iron poles of Oppenheimer patent were used initially in the southern section and the balance with local timber. However, replacement of the wooden poles commenced in 1873 and was completed in ten years. In 1966 most of the iron poles were still in use.

Over the years since the township of Stuart was renamed Alice Springs, it has grown steadily and the tourist trade is now booming. With such places as Ayers Rock, Standley Chasm, Kings Canyon, Palm Valley, Simpsons Gap, Ormiston Gorge, Glen Helen Gorge, Corroboree Rock, Flynn's Grave, and many other attractions all within easy reach, it is no wonder that the latest gimmick, "Alice's Wonderland", is so fitting. Situated on the Todd River, which flows only on rare occasions and being in the dry interior, the bird life is not prolific. The best area of open country would be the old Telegraph Station, where I listed 23 species in one afternoon. However, the local sewage ponds just out of Alice Springs through Heavitree Gap have the largest concentration of birds in the district. Early one morning Mrs Wheeler and I did an hour count there and here are the details:—

Alice Springs, Northern Territory. — Local sewage ponds, October 10, 1977. Warm, clear sky with light northerly breeze. 6.30 a.m. to 7.30 a.m. Birds in order of sighting: Black Duck, 30; Grey Teal, 100; Little Crow, 24; Pelican, 2; Little Grebe, 66; Wood Duck, 1; Tree Martin, 30; Zebra Finch, 35; Silver Gull, 1; Hoary-headed Grebe, 4; Common

Sandpiper, 6; Little Grassbird, 18; Reed Warbler, 4; Little Pied Cormorant, 4; Whistling Kite, 5; Fork-tailed Kite, 4; White-faced Heron, 5; Marsh Tern, 8; Magpie-lark, 2; Masked Plover, 3; Rainbow-bird, 2; Black-fronted Dotterel, 25; Black-shouldered Kite, 2; White-headed Stilt, 15; Little Black Cormorant, 1; Yellow-billed Spoonbill, 2; Galah, 2; White-necked Heron, 1; Pink-eared Duck, 6; Coot, 8; Blue and White Wren, 2; Plumed Tree Duck, 15. 32 species and 433 individuals.

EXCURSION TO THOMPSON CREEK AND BREAMLEA

FEBRUARY, 1978. by Jack Wheeler, David King and Ted Errey

Leader: Jack Wheeler. Weather perfect—warm with cool southerly breeze.

First stop was at Stewart Reserve, off Torquay Road, where the Armstrong Creek wanders through a small area of mostly regenerated Red Gums intermixed with other varieties such as Sweet Bursaria, Black Wattle, Blackwood, Prickly Acacia and Wild Cherry, whilst several shrubs of Hop Goodenia were flowering. This area was once the scene of much activity as a watering place for stock; it was also the site of a three storey flour mill. Aboriginals called this place "Doolebeal", Red Gums and it was the home of King Billy, Geelong's last full-blooded Aborigine. The first bird of note was a White Egret perched on a large Red Gum and later many Red-backed Parrots were recorded in trees opposite the reserve and along the fence. It is one of the few places in the Geelong district where Red-backed Parrots regularly occur. A lone young Pallid Cuckoo was observed and appeared to be in search of food from any bird that happened along. Just before leaving this attractive area, a small flock of Galahs flew over and further down the road, a beautifully marked Spotted Harrier was noted, a species rarely seen in the Geelong region.

The picnic area at Thompson's Creek, provided us with good water holes where many water birds were noted, which included three species of cormorants, the Black, Little Black and Little Pied. Four Yellow-billed Spoonbills were resting in a dead tree, whilst Reed Warblers and a lone Fantail Warbler were active in the cumbungi. Four Black-fronted Dotterels were disturbed along the creek bank. Age-old Moonah trees were in flower, and gave plenty of shade along the north bank. After inspecting the newly constructed wine cellar for his winery, Geoffrey Dans, the owner of the property, was thanked for allowing us access to his property.

On the way to our lunch stop, a short stop gave us time to inspect a crop of safflower which was just past the flower stage. Lunch was taken in the spacious Hall Reserve in the heart of Breamlea with protection and shade from tall Coast Teatree. Following lunch, a lone Nankeen Night Heron was feeding in the tidal creek nearby, as well as several White-faced Herons and Spur-winged Plovers, whilst a Black-shouldered Kite rested in a dead tree nearby.

The specimen table produced a collection of introduced plants found growing around the hall and included the minute but attractive flower of the Boxthorn, also South African Boneseed, Creeping Ivy, Pygola Myrtifolia. An attractive enamelled Spiny Spider was found, also examples of fungi.

At 2 p.m. all 33 cars moved to Bancoora Beach parking area, and one group did a beach walk and found two beach-washed Little Penguins and one Short-tailed Shearwater (Mutton Bird). Another group went fossicking among the rocky outcrop and found many crabs, including the unusual seaweed crab. Several elephant snails were found. Quite a collection of shells was also found.

Several Crested Terns were observed and one bird in particular was seen to be carrying food and later fed a large flying young, indicating that a breeding colony was not too far distant, probably at Mud Islands.

As the bird list was being prepared, a Caspian Tern, our largest tern, flew overhead, making the total 45 species for the day.

Before returning home, several took advantage of the good weather and had a swim in the surf.

Invertebrates

Moth larvae found on some young eucalypts were found to be of the genus Ontheraea, the same genus as the more commonly known Emperor Gum Moth. Also found on the same trees were specimens of Leaf Beetle, Paroposis spp. together with a number of empty egg cases probably from the same beetles.

Close by in the creek a large number of the shells of a fresh water mollusc were found washed up against the bank. The exact species could not be determined, the family being Carbiculiidae. Little is known about these molluscs.

Botany Report

As all places visited had been settled many years, introduced plants were common. At Stewart's Reserve were Briar, Gorse and English Broom; at Thompson's Creek Carpet Weed, Buck's Horn Plantain and Hogweed; at Breamlea Boneseed, Prickly Pear and Myrtle-leaf Milkwort. All areas had thistles, docks and boxthorn.

Native plants at our first stop included Red Gums, Cherry Ballart, Sweet Bursaria, Hop Goodenia and Kangaroo Grass as well as four Acacias, Blackwood, Black, Golden and Hedge Wattle. Outstanding along Thompson's Creek were the magnificent Moonahs in full bloom. In the mud, Creeping Monkey-flower carried lovely mauve flowers, while Water-ribbons, Bulrushes and Common Reed grew in the stream. At our lunch stop at Breamlea were Coast Tea-tree, Coast Beard-heath, Spinach, Blushing Bindweed and several salt-bushes and glass-worts. Sea-rocket grew close to high tide mark, and long stems of Sea Nymph were mixed in the piles of seaweed. Sea Nymph is one of the few flowering plants that live in the sea.

WHITE-THROATED HONEYEATERS

by INA McINTYRE

Have any of our members ever seen a White-throated Honey-eater in our area? I had assumed that it belonged in Victoria as well as in Queensland, since I saw it here many times in 1974 and 1975. Imagine my surprise, therefore, to learn recently that it is supposed to be found only in northern Australia, coming as far south as Nambucca Heads.

I saw it for the first time in Victoria late in October, 1974, when my husband and I were bird-watching in the Bannockburn forest near the schools plantation, and were forced by rain to have lunch in the car. A few feet away was a small gum tree just coming into flower, and into it flew a white-throated honey-eater. We had a perfect view of his olive-green back, black cap with a white band below it, pure white front and blue eye.

Being familiar with the bird from seeing it in south-eastern Queensland, we just thought, "Oh, it's here too," without checking the bird books for its distribution. That summer we saw White-throated Honey-eaters on numerous occasions, always at Bannockburn. As the smaller pools of water dried up we saw them more and more frequently (often half a dozen at a time) at a permanent dam in the heart of the forest.

Because the dam was so popular, not only with many different kinds of honey-eaters, but with other birds ranging from Pardalotes and Wrens to Rainbow Birds and Eastern Rosellas, we got into the habit of taking our lunch or tea and sitting by the dam to watch them drink and bathe.

We were especially intrigued by the similarities and yet the differences between two of the visitors — the White-naped and the White-throated Honey-eaters. Both were tiny and had the same olive-green back, the same black cap with the white band below it, the same white front, though the White-naped Honey-eater had a little bit of black just below his beak and he also had a red eye instead of a blue one. Often both honey-eaters would be at the dam at the same time, a group of White-naped Honey-eaters at the water's edge and a few feet away a group of White-throated, with perhaps a few yellow-faced, white-plumed or yellow-winged, or even a big White-eared Honey-eater in between.

As autumn set in we went less often, and then to Queensland for the winter, but in the spring of 1975 we were back in the Bannockburn forest, and my records show that we saw the White-throated Honey-eaters on the 7th and 11th of September, on the 4th October and for the last time on 18th October of that year (only that day they were on the other side of the Skipton road, close to the golf course). I have not seen them since.

Well, there you are. They are not supposed to come so far south, yet it is hard to see how we could have been mistaken on so many different occasions, under such perfect viewing conditions. On the other hand it is hard to see why no one else has reported seeing the bird. Of the various friends who joined us for a picnic lunch or tea by the dam, none kept records or can remember clearly details of what they saw and so corroborate the sighting.

The mystery remains.

MEETING NOTES

The club produces a monthly Newsletter which is available at each meeting; it contains news of the meetings, excursions, reports, correspondence and other items of interest. The Newsletter is distributed to members who attend the meetings or who are prepared to pay for postage ($2 p.a. at present); but since it does contain many reports of interest to all club members, it has been decided to extract selected items each month and publish them in "Geelong Naturalist."

JUNE NEWSLETTER, No. 150

General Meeting

General Meeting 2 May, 1978

Panelists Jack Wheeler, Ted Errey, Gordon McCarthy and Stan Rowe were kept very busy answering questions put to them by club members. The queries included: Where do flies go in winter? Are there various species of mosquitoes? are there any Ground Parrots in the area? Do Blue-tongued Lizards eat snails? Should one prune a dodonea and a boobialla and if so, when? Can one transplant a young grass tree? Where do Rufous Fantails go in winter? How long does granite take to cool? What is the approximate age of verdite? What was the original vegetation of the basalt plains? . . . and many more. A full list of questions and answers will be printed in *Geelong Naturalist* later in the year.

Correspondence

Selected items include:—

G.E.C.: Notice of meeting — Bill Mollison, on Permaculture.
Victorian Railways: Lara railway siding vegetation.
Minister for Conservation: Lara railway siding vegetation.
Minister for Conservation: Parker River logging.
A.C.F.: "Habitat" and Newsletter.
W.V.F.N.C.A.: Notice of campout Oct. 20, 21, 22.
N.R.C.L.: Notice of "Treeplanting in Agriculture" forum.
Government Printer: Proposed Recommendations: Alpine Study Area.
C.C.V.: Alpine Study Area letters.
Royal Society of Victoria: Otways Symposium papers.
Toowoomba F.N.C.: Newsletter.
Latrobe Valley F.N.C.: Naturalist.
D. R. Hocking: Lake Murtnaghurt.
V.F.N.C.A.: Minutes of 6th annual meeting.
C.C.V.: Notice of "Small Crown Reserves" seminar.
A.N.O.S.: The Orchadian.

Enfield Forest Park 21 May. 1978

Very well attended and weather ideal. First stop was at the road junction rendezvous, where Ballarat F.N.C. secretary, Miss Helen Burgess, and friends joined us.

Here, under pines, our President had a maze of Fly Agarics for us to view; from then on great interest was taken in other fungi which was abundant, the colourful coral fungus being outstanding, as were some of the more minute forms.

Red Heath was abundant and added much colour to the more-or-less drab bushland at this time of the year. Entering the forest via Misery Creek road, we found several flowering specimens of Silky Hakea *(H. tenuifolia)*; it is a spring flowering variety, certainly a little early for Enfield. Other flowering plants were the Cranberry Heath and blossoms on the Manna Gum *(Euc. viminalis).*

Lunch was taken at Mt. Misery picnic ground, where birds were much more vocal — White-throated Treecreepers, White-eared and White-naped Honeyeaters, Scarlet and Yellow Robins. The Ballarat group flushed a Spotted Quail Thrush. After the specimen table, which was capably handled by Ted Errey, we moved on to more open bushland along Incoll's Road where much more fungi was found; but the hunt for orchids resulted in our noticing only some leaves.

Here we were greeted by Kookaburras, Golden Whistlers, quite vocal Grey Thrushes, and Grey Currawongs.

One of the finds of the day was a remarkably well-camouflaged Stick Insect.

The return trip was via Rokewood, Shelford and Inverleigh, and it was between Rokewood and Shelford that those in the tail-end cars were able to stop and see four Brolgas in a paddock with sheep. Near Inverleigh, we made a short stop, intending to search for fossils in a road cutting, but it was too boggy to attempt. We have visited the area several years previously and collected many fine specimens.

(J.R.W.)

You Yangs

Mrs. Dedman reported on the meeting of the You Yangs Committee of Management. The architect commissioned by the Forests Commission displayed and explained his plan for the re-design of the entrance to the reserve. This was attractive and concentrated on the public recreation side of the Regional Park rather than the forestry aspect, and included an environmental centre. Finance does not permit the plan being implemented at present.

Lake Murtnaghurt

We have agreed that letters should go to the Premier and to the Minister for Conservation asking that the L.C.C. final recommendations on the Connewarre Reserve be gazetted separately as a matter of urgency and that Lake Murtnaghurt be declared a non-shooting area within the reserve.

Swan Bay

We will write to the Bellarine Shire Council objecting to the application of the Portarlington-Queenscliff Trail Bike Club for the use of 8.1 hectares of land south of the airstrip on the Portarlington-Queenscliff Road. This area is an important bird shelter, particularly at high tide, and is frequented by Royal Spoonbills.

JULY NEWSLETTER. No. 151

General Meeting 6 June, 1978

Mr. Eric Bound was guest at the June meeting; he spoke about his visit last year to Groote Eylandt, describing the physical structure of the island, its Aboriginal and European residents, its bird, plant and animal life.

The island, in the Gulf of Carpentaria, was often visited by Makassans who sought the beche-de-mer or trepang; evidence of their occupation still exists in groves of trees that mark their camp sites. The Aborigines who live there are now centred mainly at Europeanised missions, although a tribal elder, Nangewarrah, has constructed an aborigine-designed village outside the area of European influence. Mr. Bound also described the manganese mine, the miners' life and living conditions and showed photographs of the township of Alyangula, the mine, rivers and forests, birds and plants.

Nature Notes, 6 June Meeting

Mr. Paul Chaplin reported finding a dead Little Penguin in the river at Barwon Heads, 200 metres upstream from the bridge, the first penguin he has found in the river. He reminded members to look for stranded birds on beaches after storms.

Mr. James reported a Peaceful Dove two weeks previously at Bellbrae. He wondered if it could be an escapee from an aviary, especially as it was so tame. Mr. Wheeler said the tameness was natural in these birds, and that the Peaceful Dove has been recorded for Mannerim.

Three new birds have been recorded for Victoria in the past few weeks:

> Royal Penguin at Apollo Bay and White-tailed Bosun-bird at Mallacoota (both alive when found).
> White-quilled Pygmy Goose shot on a lake near Wangaratta.

An immature Gannet found at Johanna two weeks before, was being looked after by Mr. and Mrs. Smith.

A Koala, hit by a car and rescued by Mr. Stan Rowe, was now at the Ocean Grove nature reserve. It cannot climb, as it has had one toe removed. (It later died from its injuries.)

Mr. Boardman reported the first flowering for the season of the Golden Wattle.

Mr. Boardman expressed concern at the smaller number of Echidnas seen recently in the Brisbane Ranges. 15-20 years ago there had been a build-up in Echidna numbers. He wondered if the presence of *Phytophthora cinnamomi* led to the disappearance of ant colonies, thus affecting Echidnas' food supply. Mr. Wheeler claimed that Echidnas seem to be wandering more than formerly. Mr. King pointed out that ground litter and rotting logs are also necessary, especially for the supply of termites. It was suggested that we should perhaps contact the Mammal Survey Group or Melbourne or Monash Universities for information or research.

Mr. Woodland had noticed an increase in Mistletoe on a recent trip to New South Wales.

Mr. McCarthy reported a very late flowering Hyacinth Orchid.

Correspondence

Selected items include:—

Port Phillip Authority: Animal Health Laboratory (Committee members inspected the foreshore buffer and nature reserve adjacent to the site on Saturday, 1 July).

Shire of Winchelsea: Lorne-Angahook State Park — reply.

Minister for Conservation: Lorne-Angahook State Park — reply.
(In reply to our letter on the Sawmillers' proposal to log more of the area.)

Franklin Mint: Notice re "Birds of Australia" medals (50 medals available at $35 each).

A.C.F.: Save the Whale Fund and petition. (The petition is being circulated tonight. Committee agreed to donate $20 to this important fund.)
N.R.C.L.: Notice of Annual Meeting.
Aust. Birdwatcher: Observations of Peregrine Falcon.
Boy Scouts Association: Invitation to annual meeting.
A.C.F.: "Habitat" and Newsletter.
Queensland Wildlife Pres'n Soc.: "Wildlife in Australia".
ANGAIR, G.E.C., C.C.V. and S.G.A.P.: Newsletters from each.
F.N.C.V.: "Victorian Naturalist".

Working Bee, You Yangs 24-25 June

A small group of members worked hard on both days clearing the Saddle area of boneseed and on Sunday planting 200 trees. The project area looks extremely good, with the trees and shrubs planted on previous years growing well and flowering profusely.

The regeneration of boneseed was mainly centred in the valley north of the track, on the area where our first work was done about 16 years ago; it was here too that we concentrated this year's tree planting.

The slope below the car park is now at a minimum maintenance level and future works could be directed to expanding the cleared area; it is important of course to ensure that the work already done is not jeopardised by extending our resources.

Beside the Saddleback Road, the F.C.V. has done some clearing and mulching with grass hay and one possible club project could be to extend this work into the rocky hill south-west of the car park.

The Committee at its June meeting resolved to spend up to $160 on machine hire to extend the clearing of boneseed in this area; Mr. Pescott is to negotiate with the F.C.V.

New Members

A welcome is extended to Mrs. Cook, Belmont; Mr. and Mrs. D. G. Semmens, Manifold Heights; Simon McMahon, Balliang; Miss J. Mitchell, Eltham; Dr. and Mrs. Hunt, Belmont; Mr. R. Heil, Whittington; Mr. and Mrs. A. Vandyke, Norlane; Mr. and Mrs. Walter and family, Belmont; Laurie Conole, West Geelong; Mr. and Mrs. Ted Conole, West Geelong; Mr. R. Quarrell, Corio; Miss Rosemary Atkins, Newtown; Mrs. Fargie, Newtown; Miss M. Fargie, Newtown; Miss P. Murray, Geelong West; Mrs. J. Ward, Geelong West; Dr. D. Obendorf, East Geelong; Mrs. I. Quirk, Geelong West; Mr. L. Hunter, Barwon Heads; Anglesea Fire Brigade, Anglesea; Miss Jasmyne Jackson, Ocean Grove; Mr. and Mrs. G. Dean, Herne Hill; Mr. and Mrs. R. Whiteside, Highton; Mr. and Mrs. Heron, Corio; Mr. Chris. Coomber, Highton; Miss B. Moore, Wurdi Boluc; Deakin University, Waurn Ponds; Mr. Michael Fisher, Alice Springs; State Primary School, Corio; Mr. Bert Alsop, Lorne.

Mantis Specimen at meeting of 2 May. 1978 (by David King)

This specimen was an apterous (wingless) female of the family Amorphoscelidae, the males are always fully winged, and was identified as *Paraoxypilus tasmaniensis*. The more familiar and larger mantis belongs to the second of the two families present in Australia, i.e. Mantidae.

Amorphoscelidae attains its greatest development in Australia and all the species are small, generally frequenting the bark of eucalypts. In common with all mantids they are carnivorous, their prey being captured with the raptorial forelegs, and consist mainly of insects. Paraoxypilus is particularly well camouflaged in the female, which takes on the appearance of a piece of bark.

Young are hatched from the egg essentially as small replicas of the adult. They increase in size through a series of moults, the wings of the male increasing from initially rudimentary processes.

(It was found in the sandhills at Sorrento by Mr. R. Whiteside.)

Tupong in the Anglesea River

(by Trevor Pescott)

Junior member Stuart Southcombe caught a Tupong *(Pseudaphritis urvilli)* in the Anglesea River on 16 April, 1978. This is a fish which may be found in either fresh or salt water, and may be transferred from one to the other without ill-effect.

Tupongs are known to occur in the Barwon, Barham and other Otway rivers; they grow to about 400 mm in length.

☆

ORCHARD SPIDER OR BIRD DROPPING SPIDER

(by David J. Brown)

I first discovered the spider in a broom tree in the front yard of my home in mid-November, 1977. She had built one cocoon.

Up until the 3 February, 1978 she had completed 10 cocoons. At this stage it appeared as though at least, four of the cocoons had a small hatching hole, the first of which appeared around mid-January. At this stage I had seen what appeared to be three or four of the baby spiders. They did not often appear. I noticed that the adult spider was living on moths. It's quite hard to tell this as she covers the moth in a silky-type substance. This in turn looks just like the seed pods of the broom tree.

It might be noted that on 29 January, 1978 I discovered the same species of spider on the same type of broom tree at the Balyang Sanctuary. Newtown.

There does not appear to be any web with this spider, but the cocoons are held together by a very strong strand of silk.

Up until 1 March, 1978 she had produced 13 cocoons, most of which had hatched or rather appeared to have a small hole in the side.

Unfortunately on 21 March, 1978 she met a sudden end, presumably a bird or some other predator.

SPECIMEN TABLE LIST

2 May, 1978

Kauri Pine (N.Z.) E. G. Errey
Whole cone; opened cone and seeds.

Lawn Mushrooms E. G. Errey
Two types grown in own garden. ? edible.

Anogramma leptophylla (Annual fern). Mt. Eccles. G. A. Yarnold
Although almost cosmopolitan, this little fern is not often seen in Australia. It belongs to Maidenhair family.

Cassowary eggs (New Guinea) D. Francis
Also found in Northern Australia.

Flat Bark Grub. Specimen at April meeting. D. Francis
Now turned into chrysalis, easily viewed through glass specimen case.

Geological Specimens from nearby coastal areas. S. Rowe

1. *Cellepora gambierensis:* A branching Bryozoan (Lace Coral) of Upper Oligocene age (about 30 million years ago). Jan Juc.
2. Flint: A nodule of flint, composed of silica ($S.O._2$) weathered out of sediments and found on beach of N.E. Anglesea. Rare in Geelong district.
3. Vivianite: Hydrated iron phosphate ($Fe_3(PO_4)_2.\ 8H_20$. Found as nodules on the shore of N.E. Anglesea. When finally broken it is pale grey, becomes blue by oxidation on exposure.
4. Gypsum: $CaSO_4.\ 2H_2O$. Occurring as veins in Tertiary clays. Found at Bird Rock, Torquay.
5. Volcanic Bomb: The outer black portion is basalt lava. The inner, green portion is material from the earth's mantle, brought up from 60-100 km deep by the volcanic eruption. It is composed mainly of olivine — magnesium iron silicate. West Victoria.
6. Jarosite: Potassium iron sulphate. $KFe_3(SO_4)_2\ (OH)_6$. Occurs as abundant nodules in the sea cliffs. N.E. Anglesea.
7. Calcite: var. Dogtooth Spar ($CaCO_3$). Clear, sharp crystals lining cracks in a calcareous concretion found in clay of Tertiary age. Pt. Danger, Torquay.

Upper and Lower Mandibles of Pelican. G. Tribe
Found at Ocean Grove. Bag capacity 4¼ gals.

Praying Mantis. R. Whiteside
Very small species, found in sandhills at Sorrento.

Acacia podolarifolia (Queensland Silver Wattle). L. Sherwood
At present in bloom. Very attractive silver foliage.

Hakea laurina (Pincushion Hakea), now in bloom. E. Yeoman

Euc. platypus (means "flat foot"), now in bloom. E. Yeoman

Casuarina stricta, with male flowers, golden. G. Mathison

Casuarina stricta, with female flowers, red. G. Mathison

Nest: possibly of Silvereye. Very small.

6 June, 1978

Quartz Crystals, White Rock Valley, Adelaide. D. Francis

Leaf Fossil, Northern N.S.W. I. Woodland
5/6/78.

Growing specimens of Orchids, Anglesea. Mrs. A. Vines
Tiny Greenhoods *(Pt. parciflora).*
Striped Greenhoods *(Pt. alata).*
Gnat Orchid *(Acianthus exsertus).*

Bracket Fungus near Skene's Creek waterfall. D. King
Washed down gully at Tanybryn Junction. Growth rings and hardness notable features.

Euc. lehmannii (Bushy Yate) buds and flowers. Mrs. M. MacCaulay
Grown from seed from Coolangatta.

Astroloma pinifolium (Pine Heath), Grampians.
Grown at O.G.N.R. E. G. Errey

Grevillea alpina (Mountain Grev.). Grampians.
Grown at O.G.N.R. E. G. Errey

Q'land Silver Wattle.
Grown at O.G.N.R. E. G. Errey

Ever-flowering Wattle (Wirilda).
Grown at O.G.N.R. E. G. Errey

Sallow Wattle.
Grown at O.G.N.R. E. G. Errey

Beche-de-mer (Sea Cucumber). G. Tribe
Found in flood-saltwater near Jamieson River 6/6/78.

Box Fish Kennet River G. Tribe

Sandstone Fossils. G. Tribe
Near Cape Patton.

Collection of Butterflies. Mrs. Venters
Story of Wanderer Butterfly.

Sea Tulip *(Pyura pachydermatina)* G. McCarthy
Found near Urquhart's Bluff.

Sea Squirt (cunjivoi), a member of the Tunicata, this one fixed, or sessile, called Ascidian.

Cup Sponge *(Phyllospongia sp.)*

Marine Worm *(Sipunculus)*

Various Seaweeds and Sponges.

JUNIOR PAGES

PREHISTORIC ANIMALS

The first clear record that we have of early life on earth are hard shelled creatures that were found in oceans approximately 600 million years ago. These creatures are called *trilobites.*

Amphibians developed from fish like creatures and later they began to lay eggs with shells and so reptiles developed. Slowly they changed into different forms. Some of the reptiles moved away from swampy areas and began to live on the plains, deserts and finally ventured into the hills. Warm blooded animals called para mammals developed over millions of years.

Reptiles continued to change over the millions of years and their legs gradually grew beneath their bodies so that they could cope with the huge weight..

DINOSAURS: The word dinosaur means "terrible lizard". Dinosaur was the name given to fossils of the large group of reptiles that were found in rocks of the Mesozoic times. e.g. 225-65 million years ago. By the end of the Triassic period dinosaurs frequented Europe, South Africa, Asia (China), North and South America.

Dinosaurs varied in size greatly. Some moved on hind legs whilst others reverted to four legs. Some returned to the sea. Mammals survived because they were small and nocturnal in their habits.

The skin of dinosaurs varied in texture from rough to smooth, whilst others had large long plates of armour. Gradually two types of hip joints developed in dinosaurs, e.g. the bird hip and the lizard hip.

TWO MAIN ORDERS OF DINOSAURS

Saurischia — or lizard hipped archosaurs.

Ornithischia — bird hipped archosaurs.

Most saurischians had teeth completely around jaws but most ornithischians had no front teeth.

Another main group of ornithischians were horned quadrapeds with heavy bones protecting their necks (Triceratops).

The largest land animal that ever lived was the Brontosauros, approximately 20 metres long and 30 tonnes in weight.

Many of these prehistoric monsters had huge frames and tiny brains.

Tyrannosauros was probably the fiercest animal on earth. Fossils of this creature have been found in America.

PTEROSAURS were actually flying dinosaurs, which flew by using wings formed from flaps of skin between their front and back legs.

What Australian mammal uses a skin membrane to help it glide? Pterosaurs used to glide on air currents.

Pteranodon was the largest flying animal.

Boys and girls might be able to do some research on the origin of birds and trace their prehistoric ancestors.

Mammoths were also prehistoric creatures and they lived during the ice age. These creatures were like giant fur covered elephants with huge curved tusks.

Not far from Geelong are the Batesford Quarries where fossils of marine life can still be found.

Make use of the library to further your studies on this topic and, if possible, visit the Melbourne Museum.

—Ian Woodland

THE FROG

It is the time of year when frogs become more evident in the southern part of Australia, when after a period during which there has been less rain, winter and early spring bring with them plentiful rainfall. Ponds and lakes fill, low areas become swampy and large puddles persist for long periods. This automatically triggers off the breeding instinct and the male frogs start calling with the familiar croaking, clicking and plonking noises, to attract the female of the species. This calling usually proceeds throughout the night for all species and a few will call during daylight too.

Once the male frog has attracted a female he will grasp her in a tight hug which will stimulate her to lay her eggs and the male will fertilise them.

In most cases the eggs will be laid in water, where they float as a frothy mass. However, some frogs that inhabit the drier areas often choose very damp places to lay the eggs. These develop into the tadpole stage more rapidly than those laid in water.

The tadpole stage is familiar to us all, with its rounded body, bulging eyes and long tail which it uses to propel itself through the water. The feeding habits of the tadpole are quite different from the adult frog. Tadpoles eat algae, the green and often slimy coating that occurs on stones, rocks and water plants. It scrapes the algae off with the small rows of scrapers situated above and below the mouth which has no teeth. As soon as the tadpole changes into the frog stage it no longer eats vegetable matter but turns to eating meat in the form of insects and grubs. In other words, it changes from a herbivore to a carnivore.

Breathing is also different in the tadpole, for it uses gills to extract the oxygen dissolved in the water in the same manner as fish. The adult frog breathes like we humans, through its nose or mouth into lungs which extract the oxygen from the air, and therefore the frog cannot remain under water for long periods.

The development of the tadpole to the frog stage is a fascinating process. At first it just increases in size until on reaching a certain size, dependent upon the particular species, it will stop growing, and instead will start to change in appearance. Firstly the legs will sprout from the body and progressively lengthen, after which the arms will grow in the same manner. During all this time the tail will remain the same, but as soon as the legs and arms have developed to become replicas of the adult frog, the tail will start to slowly diminish in size. This is because the tadpole's breathing organs and mouth parts are changing and it cannot feed, so it absorbs the tail as a food supply until it has fully transformed into a frog, and can start to catch insects and grubs for food.

The frog catches its food by flicking out the tongue which has a sticky substance on it. With the insect stuck to the tongue the frog draws it back into its mouth and proceeds to swallow its meal. The frog is not able to chew in the normal way, as it does not possess teeth such as we know them, but rather crushes its food between the hard parts of its jaws. Very often if the insect is a large one it will use its hands to stuff the protruding parts of the insect into its mouth. A frog will not attempt to catch any prey unless it is actually moving for it appears that the movement in some way stimulates the frog into action.

—David King

WHITE GOSHAWK IN BELMONT

(by Trevor Pescott)

Nurseryman Mr. John Mahoney reported seeing a White Goshawk in a tree off Mt. Pleasant Road in Belmont in April, 1978.

The bird was seen on several occasions late in the afternoon; its identity was confirmed by Mr. Roger Wileman of Leopold, who was visiting the nursery on one occasion when the bird was present.

COMING EVENTS

SEPTEMBER

5	General meeting. Mr. Marc Gottsch, Natural History in the Outback.
9–10	Campout — Otways.
17	Excursion. Brisbane Ranges.
26	Committee Meeting.

OCTOBER

3	General Meeting. Mr. Bill Davis, "Last Day of a Wilderness."
*	W.V.F.N.C.A. Campout. (Date to be confirmed)
13–15	Campout — Little Desert (Show weekend).
28	Excursion. Barwon River.
31	Committee meeting.

NOVEMBER

7	General meeting. Mr. Bill McWilliam — Australian Fishes.
11–12	Campout — Brisbane Ranges.
18	Working bee. Belmont Common.
19	Excursion (bus trip). Melville Caves.
26	Working bee. You Yangs Saddle.
28	Committee meeting.

OFFICE BEARERS 1978 79

President:
Mr. Geoff Mathison, "Bona Vista", Winchelsea.
(Phone 67 2355)

Immediate Past President:
Mr. E. G. (Ted) Errey, 3 Leonard Street, Belmont.
(Phone 43 2848)

Vice-presidents:
Mr. Jack Wheeler, 72 James Street, Belmont.
(Phone 43 1200)
Mr. David King, 8 Truam Street, Portarlington.
(Phone 59 3023)

Honorary Secretary:
Mrs. Valda Dedman, 69 North Valley Road, Highton.
(Phone 43 2374)

Assistant Hon. Secretary:
Mr. Gordon McCarthy, 26 Fairbrae Avenue, Belmont.
(Phone 43 1826)

Honorary Treasurer:
Mr. John Ealey, Unit 3, 20 Peary Street, Belmont.
(Phone 43 4381)

Assistant Hon. Treasurer:
Mrs. Betty Quirk, Lot 2, Crimea Street, Drysdale.
(Phone 51 2996)

Honorary Editor:
Mr. Trevor Pescott, 4 Victoria Terrace, Belmont.
(Phone 43 4368)

Excursion Secretary:
Mr. Graeme Tribe, 27 Madeley St., Ocean Grove
(Phone 55 2302)

Honorary Librarian:
Miss Leila Ramsay, 8/76 Barrabool Road, Highton.
(Phone 43 3661)

Committee:
Mr. Ian Woodland, 33 Grant Street, Newtown.
(Phone 21 6517)
Mr. Rolf Baldwin, 2 Kyle Avenue, Belmont.
(Phone 43 3763)
Mr. Geoff Gayner, Lot 80, Jenkins Drive, Lara.
(Phone 82 2182)

Auditor:
Miss Jean Hoggart.

Ken Jenkin —Print

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An hour count No. 27

MATARANKA HOMESTEAD TOURIST RESORT, N.T.

By Roy Wheeler

The Mataranka Homestead tourist resort is about 100 km south of Katherine in the Northern Territory and about 11 km east of the Stuart Highway. It is bounded by the Waterhouse and Roper Rivers and the nearby National Park with its famous thermal pool is a great attraction for the locals and tourists.

The Mataranka Station was part of the original Elsey Station made famous by Mrs Aeneas Gunn's book *We of the Never Never.* It was built early in the century, a large wooden structure with the shuttered windows of the time and sleeping quarters upstairs. It is set in a spacious tropical garden of bouganvillias, cedars, tulip trees, hibiscus and other colourful shrubs. Mrs Wheeler and I spent a few days there in mid-October, 1977.

The history of the homestead is a most interesting one, as about the period of the first World War it was used as an experimental breeding station for sheep but it failed because the spear grass in the area was fatal to sheep. It would appear that they also experimented with cotton as plants had been found along the rivers. The land was then taken up as a separate cattle station and at the time of the second World War, was held under lease by Mr Mark O'Connor. In 1946 the homestead was taken over by Mr and Mrs Victor Smith for use as a guest house and they obtained a sub-lease of the homestead area of five square miles. They remained there until 1963 when Mr Smith died in Darwin. Mrs Smith carried on for several months but finally sold. The new owner took little interest in the thermal pool area and the National Parks Authority stepped in and the area containing the lagoon, Rainbow Spring and the thermal pool became a national park under a full-time ranger. A large toilet block has been built and other camping facilities provided and the area is a most popular one. The thermal pool through which thousands of litres of warm clear 33 cel. water flows every hour is fed from the nearby Rainbow Spring from artesian water deep below the area. The Waterhouse River nearby, into which the waters eventually flow, the pool and the spring are surrounded with lush tropical vegetation of pandanus and cabbage-tree palms, giant melaleucas, native figs, river mangroves and many others. The new owners of the homestead, Mr and Mrs Peter Hayward, have a licensed refreshment area and we were most comfortable with excellent meals and accommodation during our stay. We slept in a "donga" in the garden and near a perfect bower of the Great Bowerbird, about six feet long and decorated with stones, berries, glass and white plastic from a broken "esky".

It was there in the garden, seated on chairs, that Mrs Wheeler and I did yet another of our hour bird counts,

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every bird seen or heard within binocular range. Tried it yet?

Mataranga Homestead, N.T. 6.15 to 7.15 a.m. October 15, 1977. Fine and warm, no wind. Roy and Vera Wheeler. Birds in order of sighting: Crow, 20; Black-faced Cuckoo-shrike, 8; Fork-tailed Kite, 12; Great Bower-bird, 2; Magpie Lark, 4; Dollar-bird, 1; Red-collared Lorikeet, 65; Papuan Cuckoo-shrike, 4; Silver-crowned Friarbird, 8; Little Friarbird, 1; White-gaped Honeyeater, 6; Blue-winger Kookaburra, 1; White Egret, 1; Red-winged Parrot, 2; Torres Strait Pigeon, 7; Cockatiel, 13; Whistling Eagle, 1; Varied Lorikeet, 25; Peaceful Dove, 12; Mistletoe-bird, 1; White Cockatoo, 1; White-throated Honeyeater, 6; Blue-faced Honeyeater, 2; Willie Wagtail, 1; Rainbow-bird, 2; Bar-shouldered Dove, 1; Peregrine Falcon, 1. Total, 27 species and 206 individuals.

P.S. — I would like to thank Mrs Rhonda Smith and Miss Nancy Hopkins of Wavell Heights, Brisbane, Qld., for the information regarding the history of the Mataranka Homestead.

MY CHRISTMAS TURKEY AND OTHER TREATS

by VALDA DEDMAN

We spent Christmas Day 1977 camped high up in a forest park in the Barrington Tops Forest, which is in the ranges some 120 miles north-west of Newcastle. The day was hot and sultry with a thunderstorm brewing, although the countryside was unusually dry — almost drought-stricken, in fact.

After a splendid lunch of turkey and ham and all the trimmings, I went off along a walking track among ancient Negrohead Beeches growing up the side of a steep rain-forested gully. Everything was amazingly dry. The moss hung like limp threads from the tree branches, the dry leaves crackled under foot on the powdery red-brown earth, the fern fronds were almost crisp. Thunder rumbled and reverberated around the maintain-tops and there was a sense of expectancy in the air. I felt I was the only person in the forest.

Then I heard a loud crackling noise in the undergrowth. Someone or something was coming up out of the deep valley. I stayed quite still, and a Brush Turkey appeared and came right up on to the path, scratching away at the debris in search of food. And then, as I stood, transfixed, he actually walked towards me. I swear he had never seen a human being before, so unconcerned was he at my presence.

I dared not move. I was even half scared, for he was such a large, powerful-looking bird. His head was higher than my knees and his great clawed feet seemed almost as big as my hand. And his coloration was so amazing! He was mostly a dull black, but his head was almost naked and bright red, while a vivid daffodil-yellow wattle, so shiny it seemed almost painted, encircled his throat. His black beak was thick and heavy, a few sparse hair-like feathers protruded from the scarlet nakedness of his head and his eyes were brown and bright. His tail was folded vertically and there was some grey scalloping on his belly feathers. His scaly legs were sinewy and yellowish, and as he scratched back the leaves with long strokes, looking for grubs and seeds, he reminded me of an ageing balding athlete. As he went about his business he grunted softly to himself, a quiet, deep rumble.

The features I found so striking have evolved for a definite purpose. The powerful legs and feet are not only for raking up the forest floor to seek food, but for scratching up leaves and soil and flinging them backwards to build up an incubating mound which is about 4m in diameter and 1-1.5m high. Mound building is the male's work, and while it is going on he is aggressive towards other males and also to the female. She is only allowed on the mound for mating and egg laying, after which the male takes over again. He tests the mound's temperature by digging test holes and burying his bald head in them and adjusts the temperature by adding extra material, apparently to extend the fermentation time. Thirty or more eggs may be laid in the mound, perhaps by more than one female — it is not known for certain. The chicks emerge fully developed and able to fend for themselves. The parents take no interest in them.

For hundreds of years mound-building birds were regarded as merely a traveller's legend, and not until Dr John Latham discovered the Brush Turkey in Australia were they accepted by naturalists. Dr. Latham called the Brush Turkey the New Holland vulture, being misled by its naked head. Its range has shrunk over the years through loss of habitat, and shooting. The southern limit is now generally regarded as the Manning River, although it was formerly found in forested areas in south-eastern New South Wales. Since the Cobark River, above which we were camped, flows northward into the Manning, the bird I saw was probably at the extreme south of its range.

Of course I did not have my camera with me. So, after ten minutes or so of watching the turkey, I decided to go back to camp and get photographic equipment, fairly confident that when I returned, the bird would not be far away. And it was so. But luck was against me. I did not have time to get within "shooting" distance before the storm burst, and as the first drops fell, the turkey walked off rather more quickly and disappeared down into the steepness of the valley where I could not follow.

Besides which, it was soon raining heavily and I was forced to shelter under the leafy canopy of the forest. And so dense was it, that hardly a rain drop reached me, although in time the water would drip off the leaves and down the trunks into the thirsty soil. As I sat there, waiting, the little birds of the forest came to inspect me, quite as unafraid as the turkey had been. A White-browed Scrub-wren sat on a branch just above my head, then a Yellow Robin came, perched sideways on a trunk, and then a Rufous Fantail showed off its rich red-brown rump and lower tail as it spread its fan and sang. It made sure I would recognise its call in future, a song similar to, but more melodious than that of its cousin, the grey fantail, although not as definite in rhythm. The grey fantail's call always reminds me of a tiny scratchy violin.

The next morning I was again fortunate as I walked along the same track. After the rain the moss was green and spongy, the ferns soft (and the leeches active). I came upon two young male lyrebirds displaying, not on mounds but just beside the track, and mimicking forest birds such as the Grey Thrush, the Yellow-tailed Black Cockatoo, the Crimson Rosellas (which in this area seemed very noisy and very swift-flying). The lyrebirds, however, were much more wary than the turkey had been, and at a slight movement from me they flew off, spreading their beautiful silvery tails. Lyrebirds seemed quite plentiful in this part of the world. We had heard them often. Most of the calls were excellent imitations of other birds of the forest, but at several times their normal volume, so we were able to say with certainty that they came from the throats of lyrebirds. Our first contact with the birds of the Barrington Tops had in fact been with lyrebirds. When we saw the first beeches here, we simply had to walk under them, and my husband and I both disturbed female lyrebirds, which flew off clumsily and with loud alarm calls and landed in another tree, a most unusual happening according to the forest ranger; usually they disappear into the undergrowth.

We found nearly all the birds in this part of the Barrington Tops to be remarkably tame, birds such as the curious ground thrush, which kept coming down on the path just ahead of us for five minutes or more until we presumably reached the edge of its territory. One bird we did not see, although we heard it frequently, was the Eastern Whipbird. "EeeeeeeWhip," from the male and without a pause the answering "Chou-chou" from the female were constant sounds around the creek. (Whipbirds are insect eaters generally, but I have seen one eating blackberries in a patch of rain forest by the Kiah River near Eden. Has any other reader noticed this?)

The Barrington Tops area is one of great contrasts. A large part of the forest is warm temperate rain forest, vine-hung and fern-clad trees, both eucalypts and large-leaved semi-deciduous varieties. Occasionally an Illawarra Flame-tree, bright scarlet in December, lights up an otherwise sombre forest. Then suddenly the trees have thinned out and (on the slope above the rain forest) you may come upon grass trees with leaning gnarled "trunks" and thick, drooping, shaggy heads from which sprout tall black flower spikes.

Some parts are given over to beech forest. There are groves of Negrohead Beech, a variety related to the Myrtle Beech of the Otways, but with larger leaves. Some of these beeches are extremely ancient, centuries old — tall, often twisted and showing the scars of broken-off limbs. The leaves are dense and shiny, tooth-edged and paler underneath, the branches moss hung, the trunks fern covered.

Ferns are a feature of all the wetter

areas. In the wet gullies there are masses of soft tree ferns, their butts covered with reddish hairs, while the rough tree ferns with their scaly trunks extend into the open areas of eucalypt forest on top. We found fishbone fern covering the path, filmy ferns and kangaroo ferns on logs, elkhorn and birds nest ferns clasped high up against tree trunks.

The greatest surprise in the whole area is the snow plains. You come up out of the warm, moist jungly valleys, through stands of eucalypt or beech, and quite suddenly the country changes to grassy slopes and hollows surrounded by stunted snow gums. Mt. William, the highest point, rises to 1600 metres, and snow in winter is not uncommon.

After exploring the higher forest areas we came down and camped by the Barrington River, clear and merrily flowing over beautiful rounded stones, brown and grey and fawn and speckled. Angopheras, or broad-leaved apples, made a fine display. Densely covered with creamy blossom among stalkless heard-shaped leaves, they looked just like flowering eucalypts. Angopheras, however, differ from eucalypts in several ways. Their leaves are always in opposite pairs, whereas eucalypt leaves are usually alternate and scattered, and their flower buds are not covered by a cap, or operculum. This cap is distinctive of eucalypt buds (Greek "kaluptos" means "covered"), which split open horizontally, while angophera buds split vertically. Apple flowers also closely resemble gum blossom, but underneath their masses of fine stamens you can find tiny petals. Eucalypt flowers have no petals at all.

Tall casuarinas overhung the water, or formed avenues, grassy beneath. Fat eels swam lazily in the sunlit pools. The birds were those of the open country, a different selection from the country up top. The beautiful Azure Kingfisher would fly along the river, plunging in to capture a small fish with its long beak, and then swiftly out, a bright flash of blue in the sunlight. Rainbow-birds were nesting in deep hollows gouged out of the clay bank. A White-throated Warbler, a tiny patch of yellow, trilled out his downward falling cadence, hauntingly beautiful. We put up a quail from among clumps of grass. A Dollar-bird, shiny blue-green, watched from a tall branch.

The bird we learned most about was the Rufous Whistler. I happened to glance up into a sheoak overhanging the river, and there in a very flimsy nest of fine twigs were two almost naked nestlings. They were fed in turn by mother and father in shifts of about ten minutes each. Mother always kept right on with the business of bringing up the family. After ramming the insect she had brought right down the wide open mouth of one of her babies, she immediately set off again in search of more food. Father, however, always flew on to a nearby branch and sang for a few moments, as if to proclaim what a fine father he was.

Each time a parent came the nestlings would set up a high-pitched squealing, necks upstretched, beaks open at their widest to reveal a bright yellow gape. This was to stimulate the parent to feed them, but what stimulated the babies to act in this way, we discovered later, by accident. Sometimes the babies would set up their commotion when the parents were nowhere near.

Then, as I watched and waited, I noticed another baby Rufous Whistler — in the shallow water directly below the nest. Had it fallen or had it been displaced by a cuckoo? The babies in the nest appeared much the same size and neither was favoured in feeding. Indeed, the mother generally fed one and the father the other. At any rate, the baby in the water was alive, if somewhat bedraggled. But what should we do with it? We could not easily reach or climb along the branch on which the nest was placed, to replace the nestling, and if it had in fact been tipped out by a cuckoo, what good would it do? We tried to shade it a little from the direct sun with casuarina needles and build it a sort of nest with stones. No parent came near it and in the end we took it back to camp.

Now we were faced with the task of collecting enough insects to keep the nestling alive, and more important, we had to learn how to stimulate it to open its mouth. It was not until we placed the bird in a Yellow Robin's nest that we conveniently happened to have, that we discovered that it is the vibration of the nest itself, not the presence of food or even the touching of any part of the bird, that stimulates it to make a noise, stretch as tall as it can, and open its mouth wide.

The baby Rufous Whistler also taught us about nest hygiene. Shortly after eating it would climb to the edge of the nest and defaecate right over the edge, thus keeping the interior of the nest quite clean. (Had it fallen out of its original nest when attempting to do this?) Not all birds are so particular about nest hygiene although sometimes droppings are taken away by the parents. The female lyrebird does this.

Unfortunately we did not succeed in saving the Rufous Whistler chick, although we supplied it with a large number of stick insects which it seemed to relish particularly. We had to push them right down its throat with a pair of tweezers. We were unlucky in that the night was unusually cold, and without the warmth of another bird to protect it, the chick could not survive. Our experience with it, however, taught us a little more about bird behaviour, and this information I have been able to pass on to the readers of this article.

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GREY (WHITE) GOSHAWK

By this time one must call it one of our rarest Hawks, seeing that no amount of education will induce the inhabitants of the forest to leave this bird alone if they have a chance of shooting it. They shoot it because it is beautiful, making to themselves the baseless excuse that it is a Hawk, and that all Hawks are hurtful, which they are not Then the body of the glorious bird, which but now hovered over the gully, pure white between the emerald of the tall gums and the fleckless blue of heaven, is thrown away to rot by the roadside, and all of us who love the bush and its wild life are the poorer for the senseless slaughter of one of the most beautiful of God's creatures.

Birds of the District of Geelong, Australia — Charles F. Belcher. Griffiths, Geelong 1914. (The photograph was taken at Apollo Bay in November 1977 by Trevor Pescott).

AUSTRALIAN TREES AND SHRUBS IN LOKRUM ISLAND NATIONAL PARK, DUBROVNIK, YUGOSLAVIA

by J. A. BAINES

During a 27-day motor coach tour of many European countries in May, 1974, we returned from Greece to Italy via Yugoslavia, and during a short stay in the historic mediaeval city of Dubrovnik, on the southern Dalmatian coast, my wife and I crossed by ferry on 29th May to the forested island of Lokrum, which promised to be of interest to naturalists as the entire island is a national park.

We were not disappointed, as we were able to enjoy the pine-woods and the gardens near the former Benedictine monastery, and study the exhibits in the natural history museum, housed in what became a residence of the ill-fated brother, Prince Maximilian of Hapsburg (assassinated as Emperor of Mexico in 1867), of the Emperor Franz Josef of Austria. But a delightful surprise was in store for us! We came upon a botanic garden area almost entirely devoted to the growing of our Australian trees and shrubs, healthy and thriving in a country where, unlike most European countries, the climate and other conditions are apparently suitable to a large number of species native to a wide range of habitats in Australia.

We had thoroughly enjoyed Kew Gardens earlier (including a visit to the Australian House), and had noted some eucalypts growing in certain parts of both Italy and Greece, but this was incomparably the most exciting "discovery" yet!

I copied down the names of many of the species, and enjoyed a talk with the only other visitor, Robert McDonald Buchanan, who had flown to Dubrovnik from his Glasgow home because he had so enjoyed a previous visit to this most historic city — he greeted us by saying "Some rare things here!" He was surprised to hear that many of the species were by no means rare for us.

Since returning to Australia, I wrote to the Biological Institute (unfortunately closed at the time of our visit) and the director referred my letter requesting information about the Australian plantings to the chief botanist responsible for them, Dr. Lav Rajevski, who replied as follows:—

Biological Institute Dubrovnik,
Botanical Garden 'Lokrum',
Dubrovnik,
Yugoslavia. 10.11.74.

Dear Mr Baines,

It was with great pleasure that I read your most kind letter of 30th September, 1974, which our director gave to me. I was most pleased to learn that our botanical garden on the island of Lokrum was a pleasant surprise for you, even though I think you gave much too high a value for our modest, still unfinished work. I was very sorry that we did not meet on Lokrum, especially since I am there nearly every day, particularly in spring. I shall try and answer the questions from your letter.

The Botanical Garden on the island of Lokrum was founded in 1959 as a part of the Biological Institute in Dubrovnik. I began working there in 1960, coming from Belgrade, where I was a professor of botany at the university. Before my arrival, a plan of the garden had been made by a garden architect ing.B. Sisic. Two hectares had been left for the garden. The whole island of Lokrum is a protected natural reserve.

Work on the garden began with my arrival. With very few exceptions, all that can be found in the garden was produced from seeds and cultivated in the nursery situated in the garden, where we have a small greenhouse of 50 square metres. Besides myself, two gardeners also work in the garden. They are of low qualification, so all the work regarding cultivating of the plants is done by myself. In addition to the problem of lack of workers, we are also confronted with the problem of lack of funds. Due to this reason, a fence has still not been built around the garden and we often have much damage done by the many tourists. All paths and other planned objects have not yet been built.

The purpose of our work is to try cultivating plants from sub-tropical countries, especially those which could be of use to horticulture, forestry, etc. It has been shown that plants from Australia can succeed very well here, thus special attention was paid to them. We also received the help of botanical gardens in Australia, who willingly sent the needed seeds even though we have not yet been able to organise the collecting of seeds and issuing of catalogues for exchange. Unfortunately, such help in the last few years has decreased, and we only receive a catalogue from the botanical gardens in Adelaide.

Neither I nor anyone else from the Institute has been to Australia. I am enclosing a list of trees and shrubs from Australia which grow in our garden. We have stated the origin of the seeds, the date of sowing and the date of planting in a constant place in the garden. We have very few herbaceous plants and we did not list them. Most probably there are some mistakes in the names of the plants, as I was not able to make corrections due to lack of literature, which is needed particularly with material received from other countries and not Australia.

I would be most grateful if you could inform at least someone in Australia of our garden.

Yours sincerely,

(Sgd.) Dr. LAV RAJEVSKI,
Chief Botanist.

LIST OF SPECIES GROWING IN LOKRUM ISLAND BOTANIC GARDEN AT DUBROVNIK

	Species	Origin of Seeds	Date of Sowing	Date of Planting
	Cycadaceae			
1.	Macrozamia communis	Sydney	1962	1971
2.	M. ,, heteromera	Perth	1964	1971
3.	M. ,, miguelii	Perth	1964	1971
	Araucariaceae			
4.	Araucaria bidwillii	Coimbra, Portugal	1963	1965
5.	A. ,, excelsa	Belgium		1974
	Cupressaceae			
6.	Callitris canescens	Adelaide	1966	1973
7.	C. ,, preissii	Adelaide	1971	1974
8.	C. ,, robusta	Perth	1963	1964
9.	C. ,, verrucosa	Perth	1964	1967
	Podocarpaceae			
10.	Podocarpus elatus	Adelaide	1971	1974
	Arecaceae			
11.	Livistona australis	Coimbra, Portugal	1964	1974
	Caesalpiniaceae			
12.	Bauhinia carronii	Adelaide	1966	1968
	Casuarinaceae			
13.	Casuarina cristata	Adelaide	1968	1971
14.	C. ,, equisetifolia	Coimbra, Portugal	1969	1971
15.	C. ,, torulosa	Palermo, Italy	1960	1962
	Celastraceae			
16.	Elaeodendron australe	Catania, Italy	1963	1964
	Mimosaceae			
17.	Acacia alata	Adelaide	1968	1970
18.	A. ,, aneura	Adelaide	1968	1970
19.	A. ,, brachybotrya	Adelaide	1967	1968
20.	A. ,, calamifolia	Adelaide	1968	1970
21.	A. ,, cyanophylla	Cagliari, Italy	1964	1965
22.	A. ,, dealbata	Sukhumi, U.S.S.R.	1964	1966
23.	A. decurrens var. mollis	Lisbon	1962	1964
24.	A. normalis	Coimbra, Portugal	1964	1966
25.	A. drummondii	Adelaide	1972	1974
26.	A. dura	Adelaide	1972	1974
27.	A. farnesiana	New York	1963	1964
28.	A. gracilifolia	Adelaide	1972	1974
29.	A. implexa	Adelaide	1968	1971
30.	A. longifolia	Lisbon	1963	1965
31.	A. melanoxylon	Lisbon	1960	1962
32.	A. notabilis	Adelaide	1966	1971
33.	A. pravissima	Adelaide	1967	1968
34.	A. retinodes	Ariana, Tunisia	1963	1965
35.	A. rotundifolia	Adelaide	1966	1968

	Species	Origin of Seeds	Sowing	Planting
36.	A. saligna	Coimbra, Portugal	1964	1966
37.	A. sophorae	Adelaide	1966	1968
38.	A. sowdenii	Adelaide	1966	1968
39.	A. tetragonophylla	Perth	1963	1965
40.	A. trineura	Adelaide	1972	1974
	Moraceae			
41.	Ficus australis	Hamburg	1967	1969
42.	F. baileyana	Adelaide	1971	1973
43.	F. macrophylla	Hamburg	1965	1967
44.	F. platypoda	Adelaide	1971	1973
	Myoporaceae			
45.	Myoporum parvifolium	Adelaide	1967	1968
	Myrtaceae			
46.	Angophora costata	Adelaide	1968	1970
47.	Callistemon acuminatus	Villa Taranto, Italy	1967	1968
48.	C. brachyandrus	Adelaide	1969	1971
49.	C. coccineus	Coimbra, Portugal	1968	1970
50.	C. formosus	Adelaide	1971	1974
51.	C. citrinus	Cologne (Koln)	1960	1962
52.	C. linearis	Cologne (Koln)	1960	1962
53.	C. macropunctatus	Adelaide	1969	1971
54.	C. pachyphyllus	Adelaide	1968	1970
55.	C. pallidus	Kew, England	1969	1970
56.	C. pinifolius	Adelaide	1967	1968
57.	C. rigidus	Adelaide	1967	1968
58.	C. salignus	La Mortola, Italy	1967	1969
59.	C. sieberi	Sydney	1969	1971
60.	C. speciosus	Essen, W. Germany	1966	1968
61.	C. teretifolius	Adelaide	1966	1968
62.	Calothamnus quadrifidus	Melbourne	1962	1965
63.	C. sanguineus	Perth	1964	1966
64.	Eucalyptus aggregata	Canberra	1970	1971
65.	E. andreana	Melbourne	1962	1963
66.	E. angophoroides	Sukhumi, U.S.S.R.	1962	1964
67.	E. x antipolitensis	Antibes, France	1966	1968
68.	E. astringens	Adelaide	1967	1968
69.	E. baxteri	Adelaide	1968	1970
70.	E. bicostata	Canberra	1966	1967
71.	E. blakelyi	Sydney	1962	1963
72.	E. blaxlandi	Canberra	1970	1971
73.	Eucalyptus botryoides	Perth	1963	1964
74.	E. bridgesiana	Canberra	1965	1966
75.	E. camaldulensis	Johannesburg, S. Africa	1963	1964
76.	E. cephalocarpa	Sukhumi, U.S.S.R.	1964	1965
77.	E. cinerea	Sukhumi, U.S.S.R.	1963	1964
78.	E. citriodora	Perth	1963	1965
79.	E. coccifera	Perth	1964	1965

	Species	Origin of Seeds	Sowing	Plantin
80.	E. cordata	Canberra	1965	1966
81.	E. cosmophylla	Adelaide	1967	1968
82.	E. dalrympleana	Adler, U.S.S.R.	1964	1964
83.	E. deanei	Canberra	1965	1966
84.	E. diversicolor	Ariana, Tunisia	1963	1964
85.	E. dives	Sydney	1962	1963
86.	E. fasciculosa	Canberra	1968	1970
87.	E. fastigata	Adelaide	1968	1970
88.	E. fraxinoides	Canberra	1970	1971
89.	E. gigantea	Canberra	1970	1971
90.	E. globulus	Socavem, Portugal	1962	1963
91.	E. goniocalyx	Adelaide	1972	1974
92.	E. gracilis	Adelaide	1968	1970
93.	E. gunnii	Canberra	1965	1965
94.	E. haemostoma	Canberra	1970	1972
95.	E. hemiphloia	Melbourne	1966	1968
96.	E. x huberiana	Antibes, France	1966	1967
97.	E. johnstonii	Canberra	1970	1971
98.	E. laevopinea	Canberra	1965	1965
99.	E. largiflorens	Palermo, Italy	1965	1967
100.	E. leucoxylon	Melbourne	1962	1964
101.	E. linearis	Canberra	1968	1970
102.	E. macarthuri	Palermo, Italy	1960	1962
103.	E. macrorrhyncha	Sydney	1964	1965
104.	E. maculosa	Sydney	1962	1963
105.	E. maidenii	Canberra	1965	1965
106.	E. mannifera	Adler, U.S.S.R.	1964	1964
107.	E. marginata	Perth	1963	1964
108.	E. melliodora	Ariana, Tunisia	1963	1964
109.	E. moorei	Canberra	1970	1973
110.	E. niphophila	Sydney	1964	1964
111.	E. nitens	Canberra	1970	1971
112.	E. occidentalis	Cagliari, Italy	1963	1964
113.	E. oreades	Canberra	1968	1969
114.	E. pauciflora	Canberra	1970	1971
115.	E. perriniana	Sukhumi, U.S.S.R.	1964	1964
116.	E. polyanthemos	Ariana, Tunisia	1963	1964
117.	E. populnea	Ariana, Tunisia	1962	1963
118.	E. pulverulenta	Sydney	1962	1963
119.	E. punctata	Melbourne	1962	1963
120.	E. regnans	Sukhumi, U.S.S.R.	1964	1964
121.	E. resinifera	Sydney	1963	1964
122.	E. risdoni	Canberra	1970	1971
123.	E. robertsonii	Canberra	1970	1971
124.	E. robusta	Johannesburg, S. Africa	1963	1964
125.	E. rudis	Canberra	1965	1965

	Species	Origin of Seeds	Sowing	Planting
126.	E. salicifolia	Canberra	1968	1969
127.	E. saligna	Johannesburg	1963	1964
128.	E. scoparia	Canberra	1968	1970
129.	E. stellulata	Sydney	1963	1964
130.	E. stricta	Canberra	1970	1971
131.	E. teresticornis	Canberra	1965	1965
132.	E. viminalis	Batumi, U.S.S.R.	1960	1962
133.	Baeckea virgata	Cologne (Koln)	1960	1962
134.	Leptospermum juniperinum	Adelaide	1967	1969
135.	L. lanigerum	Adelaide	1969	1971
136.	Melaleuca armillaris	Coimbra, Portugal	1969	1971
137.	M. genistifolia	Coimbra, Portugal	1968	1970
138.	M. glomerata	Adelaide	1969	1971
139.	M. hypericifolia	Antibes, France	1969	1971
140.	M. microphylla	Adelaide	1966	1967
141.	Melaleuca nesophila	Coimbra, Portugal	1966	1970
142.	M. parviflora	Lisbon	1960	1962
143.	M. styphelioides	Coimbra, Portugal	1967	1968
	Pittosporaceae			
144.	Pittosporum phillyraeoides	Perth	1964	1965
145.	P. rhombifolium	Adelaide	1971	1974
146.	P. undulatum	Lisbon	1964	1972
	Proteaceae			
147.	Banksia ericifolia	Sydney	1969	1971
148.	B. serrata	Melbourne	1962	1964
149.	Grevillea banksii	Perth	1963	1966
150.	G. robusta	Dehra Dun, India	1960	1962
151.	Hakea acicularis	Coimbra, Portugal	1963	1968
152.	H. elliptica	Perth	1964	1968
153.	H. crassifolia	Perth	1965	1968
154.	H. laurina	Adelaide	1971	1974
155.	H. oleifolia	Coimbra, Portugal	1963	1964
156.	H. pugioniformis	Adelaide	1968	1970
157.	H. ruscifolia	Perth	1963	1965
158.	H. saligna	Coimbra, Portugal	1964	1968
	Rhamnaceae			
159.	Pomaderris apetala	Melbourne	1962	1963
	Rutaceae			
160.	Correa backhousiana	Kew, England	1967	1972
	Sterculiaceae			
161.	Brachychiton acerifolium	Adelaide	1969	1971
162.	B. populneum	Socavem, Portugal	1963	1964

Note: Dr. Rajevski has since been supplied with a list of sources in Australia for the supply of seeds of Australian plants. I am sure he would appreciate the sending to him of any current catalogues in this field, also of seedling plants (because of the informative nature of such compilations).

SEASONAL MORTALITY IN LITTLE PENGUINS

By David Obendorf

Every year from about late January through to late March, Little Penguins (*Eudyptula minor*) are found dead along the Victorian coast, particularly in the central coastal region between Wilson's Promontory in the east and Lorne in the west. It has been suggested that young penguins experiencing their first year at sea are primarily involved in this seasonal mortality. Flipper banding of young chicks in the rookeries has greatly expanded the knowledge of the biology of these birds. Young banded penguins have been shown to cover vast distances within weeks of leaving the rookery; some birds have been recovered 410 kilometres from their rookery, within a month of banding. Although recovery of banded birds is low (approximately four birds in every 100 banded are recorded), there is evidence to suggest that many young birds follow a similar fate after dispersal from the rookeries.

The majority of chicks hatch in late spring and are fed vigorously for about 7 or 8 weeks, at which time the chicks are mature enough to go to sea in December and January. The stimulus to leave for the sea is most probably related to the cessation of feeding of 7-8 week old chicks, by their parents. In the last few weeks in the rookery during the period of enforced starvation the chicks lose the last of the down feathers and assume adult-like plumage. Probably, fat reserves built up over the rearing period are utilised at this time.

Losses occur in the rookeries, even before chicks are old enough to go to sea. Eggs are eaten by water rats and large lizards, whilst chicks are known to be predated by feral cats, foxes and tiger snakes. Adult birds may also be subject to similar predation during their moulting period in late summer and early autumn. Once at sea, young penguins are exposed to other predatory pressures such as sharks, leopard seals, and killer whales. Oil slick pollution is also a significant cause of deaths and stranding of penguins.

The reasons for the seasonal mortality are speculative, however, it has been suggested that the dispersal journeys of young birds could severely deplete bodily reserves and subsequently predispose them to adverse weather conditions in Bass Strait. The availability of their fish and shrimp diet may be crucial in the maintenance of a healthy penguin population. Other factors may also contribute to losses of young penguins.

Last summer and early autumn, substantially more birds were being reported dead on our coast, representing both adult and young birds. Live birds showed extreme exhaustion, inability to walk (apparent paralysis) and prostration, whilst many birds were simply found dead along the tide line and in the tussocks and dunes immediately adjacent to the beach front. Some hundreds of birds were found in the late January period.

From late January through to early April, I recorded all dead penguins found on our local ocean beaches from Queenscliff to Airey's Inlet. During February some 200 birds were logged, including other seabirds (shearwaters, albatrosses, terns and gannets). Some 25 penguins were submitted for post mortem examination at the Veterinary Clinical Centre, Werribee, to ascertain the cause of death. In nearly every bird examined stomach ulcers caused by a parasitic roundworm or nematode was noted. These ulcers varied from small pinpoint erosions in the stomach wall to large deep ulcers approximately 2 to 3 centimetres in diameter. Bleeding was a consistent finding in the more extensively ulcerated stomachs. Roundworms measuring some 8 to 10 centimetres in length and numbering up to 300 were recorded in some penguins. Large numbers of tapeworms and microscopic flukes were found in the intestines. Ectoparasites, such as ticks, fleas and biting lice were removed from areas of skin not easily accessible to grooming by penguins, such as the ear canals, under the chin, on the back and around the face. Young birds, generally, are more susceptible to parasitic infestations than are adults, due to the acquisition of immunity following exposure to infection. Consequently, significant debility and even deaths are likely to be brought about by these parasites. Our studies indicate that the stomach roundworm causing ulceration is most detrimental to the health of the Little Penguin since it can cause severe blood loss anaemia from bleeding ulcers and can probably bring about loss of appetite, thus preventing birds from feeding normally. Besides the parasitic diseases, some diseases typically associated with debilitated and stressed birds were noted (pulmonary aspergillosis, diphtheritic oesophagitis and chronic air sacculitis). As a general comment, all the penguins examined were in very poor state of nutrition with little or no fat reserves and poor muscle development. Little food was found in the stomachs and intestines either due to lack of availability of anchovie, krill-shrimp, white bait and other small fish or due to appetite loss associated with roundwork infestations and gastric ulceration or both.

From our studies, it was apparent that young birds found dead were in a poor state of nutrition with heavy parasite burdens and in some instances with other diseases becoming manifest as a result of these stress factors.

Unfortunately, we didn't have access to freshly dead birds or sick birds to conduct more extensive or conclusive studies. In any outbreak of disease in a wild population of animals it is imperative that fresh samples be examined promptly, if a diagnosis is to be arrived at. It is to be anticipated that in future years if similar mortalities are noticed by ornithologists and field naturalists, steps should be taken to record, collect and send any sick and dead penguins to interested workers at research institutions.

MEETING NOTES

The club produces a monthly Newsletter which is available at each meeting; it contains news of the meetings, excursions, reports, correspondence and other items of interest. The Newsletter is distributed to members who attend the meetings or who are prepared to pay for postage ($2.20 p.a.), but since it does contain many reports of interest to all club members, it has been decided to extract selected items each month and publish them in "Geelong Naturalist."

NEWSLETTER No. 152, 4 July 1978

General Meeting 4 July 1978

The film "Little Desert in Focus" is the result of four months' work by Ralph and Daph. Keller — and the time and effort spent is amply rewarded by an excellent production.

Amongst the highlights on film was the emerging of a family of Black Duck nestlings from the hollow-tree nest site; the day-old ducklings had to leap from the entrance of the nest hollow to splash land in the water below — while mother watched and called encouragement.

Close-up filming of a nesting Tawny Frogmouth was excellent as were the sequences of kangaroos, goannas and many other species; one wonders if the Cockatiel always enters its nest hollow tail-first — or was it a trifle nervous of the camera lens?

Correspondence

From—

A.C.F.: Habitat, July Newsletter, Questionnaire, Raffle.

W.V.F.N.C.A.: Campout August 26-27; Minutes April meeting; Annual reports 1977-78.

C.C.V.: Small reserves seminar 17 August 2-6 p.m.; notice of seminar, Victoria's energy future; memo re Federal funding for conservation; minutes of meeting 23-6-8; Hiroshima Day, August 6th.

Warrnambool F.C.V.: Campout details.

Trekaway: Tour brochure.

Austrack Safari Tours: Tour brochure July 79, led by Dr. Willis.

John James: Magazine congratulations.

City of South Barwon: Recreation voucher information and cheque.

N.R.C.L.: Notice of meeting and minutes.

S.G.A.P. Geelong: Newsletter.

G.E.C.: Newsletter.

Dr. Gretna Weste: Reply re echidnas, ants and cinnamon fungus.

Toowoomba F.N.C.: Darling Downs Naturalist; Newsletter.

V.N.P.A.: Alpine National Park.

Carolyn Fraser: Request for information on Otways.

A.N.O.S.: The Orchadian.

Port Phillip Authority Beach use.

Latrobe Valley Naturalist.

Fisheries and Wildlife Division: Orange-bellied parrot survey.

Note: Of particular interest is the letter from Dr. Gretna Weste, of Melbourne University, an expert on Cinnamon Fungus. To quote, "No, I'm sorry, I know of no work relating ant populations to dieback caused by the cinnamon fungus. I can imagine that the increased wetness of the ground which follows the cinnamon fungus may not be attractive to ants. As the shrubs die, their transpiration is reduced and so the ground becomes wetter and is invaded by sedges which are resistant. Of course the Brisbane Ranges are very near large populations of men — Geelong and Melbourne. More people than ever are going into the bush and this is probably discouraging for echidnas — they show no road-sense!"

(Perhaps this is a good subject for study by active G.F.N.C. members? — Hon. Ed.)

ANAHL

The G.F.N.C. has been invited to nominate a representative to the advisory committee which will manage the foreshore reserve between the Animal Health Lab. and the Bay. (Mr. Errey has been proposed as our rep. by our committee.)

Committee members visited the area on 1 July to familiarise themselves with the area. A small area of salt marsh is proposed as a nature reserve where no works will be carried out; the balance is a buffer zone to be levelled, shaped and planted. We feel that the brassy foreshore should be left in its natural state and not "improved".

Balyang

Concern is felt over the inability of the authorities to remove the Mallards from Balyang; it is likely that this spring, there will be a big increase in population of these birds. The influence on native ducks by cross-breeding is of major concern to conservationists; there is the distinct possibility that our Black Duck may be endangered as a species from this cause.

We will write to the Minister for Conservation asking that Mallards and Mallard hybrids be removed from Balyang Sanctuary by officers of the Fisheries and Wildlife Department.

Report on the

EXCURSION TO POINT LONSDALE AND LAKE VICTORIA

Sunday, 16 July, 1978
(by David King)

Some forty members attended, plus four Ranger Guides from the Bayside Ranger Guide Unit, who, as part of their service, made a collection of various items of rubbish in the area of Lake Victoria. Four phosphate bags of rubbish were cleared from the area — a commendable effort; only the five old car bodies were beyond their means.

The day started in cold, overcast and blustery conditions with a walk over the dunes to the ocean beach. A small Aboriginal midden was inspected at the top of the dune. The midden appeared to have been used only for a short period, and the shell fish used as food appeared to consist mainly of the large limpet and the green turban shell, most likely obtained from the sandstone reef at the edge of the beach at this point.

Several beach washed Fairy Penguins were found, none of which had flipper tags.

After traversing the beach for a short distance towards Ocean Grove the party moved over the dunes towards Lake

Victoria, passing through relatively thick Coastal Tea-tree (*Leptospermum laevigatum*) and Beard Heath (*Leucapogon parviflorus*).

Lake Victoria had few birds other than dotterels which were very plentiful.

After lunch and in much improved weather conditions, the party moved by car to the eastern end of Lake Victoria where an inspection of the southern shore line was made.

The specimen table was well supplied with items of interest. These included:

Sponges

Euplacella mollissima. resembling a pair of fans joined at the base.

Cup sponge — *Euplacella* spp.

Finger sponge — *Chalinapsilla* spp.

An unidentified dark green sponge resembling a round pin cushion.

Shells

Green Turban Shell — *Subninella undulata.*

The large operculum of the Heavy Turban Shell — *Ninella torquata.*

Plants

Coastal Banksia — *Banksia integrifolia.*

Correa — *Correa alba.*

Mosquito orchid — *Acainthus reniformus.*

Gnat orchid — *A. exsertus.*

Insects

Metallic blue beetle of the Buprestidae family, *Stigmodera* spp.

Bird List

(by Laurie Conole)

At 9.00 a.m. when we met at the Post Office it was overcast but not cold, so it wasn't a bad day to be out and about.

We arrived about 9.50 and set off for the walk about 10.00. Most took the walk down the beach and across the dunes to Lake Victoria. There was a strong. cold north-west wind blowing.

The following list was compiled during the road trip and in the Lake Victoria area which includes sand dunes, beach and Tea-tree.

Driving to Lake Victoria (Queenscliff Road): White-faced Heron — large numbers in paddocks. White necked Heron — one or two amongst W.F. Herons. White Ibis — two or three solitary birds noted. White Egret — several birds seen. Yellow-billed Spoonbill — a group of four at a dam. Silver Gull — many birds few overhead. Peregrine Falcon — one seen near Leopold. Galah — several flocks in a schoolyard. Cattle Egret — a flock with cattle near Lake Victoria. Raven Sp. (probably Little Raven) — numerous. White-backed Magpie — very numerous. Grey Butcherbird — one seen. Welcome Swallow — quite numerous. Goldfinch — several flocks seen. Grey-backed Silvereye — a few small groups seen. Starling — flocks and flocks and . . .

Lake Victoria and Surrounding area: Hooded Dotterel — a few dozen seen. Silver Gull — very plentiful. Black-browed Albatross — several noted far off-shore. Welcome Swallow — common amongst dunes. Little Raven — a few seen and heard. Superb Blue Wren — very plentiful. Brown Thornbill — present in tea-tree. White-faced Chat — very common. Black Falcon — two seen over paddocks near lake. White-backed Magpie — several in general area. Pipit — several in paddocks. Spur-winged Plover — very common. Grey-backed Silvereye — Tasmanian form noted in tea-tree. Black Swan — only four seen. Nankeen Kestrel — one hovered nearly all day. Red-capped Dotterel — present in large numbers. Little Grebe — good numbers for salty water. Little Pied Cormorant — a couple on islands. Golden Plover — one non-breeding bird on lake's edge. Red-browed Finch — a flock of fifteen on golf course. Blackbird — plentiful on golf course and house gardens. Mudlark — several pairs seen. Red Wattlebird — judging by calls, quite common. Grey Fantail — one bird came within inches of us. Yellow-tailed Thornbill — a group of four or five seen near golf course. Yellow-winged Honeyeater — common in tea-tree. House Sparrow — plentiful around houses. Flame Robin — two pairs seen. Fairy Penguin — two dead birds found in dunes. White-throated Tree-creeper — several in tea-tree. White-plumed Honeyeater — not common at all. White Egret — three on mud flats. White Ibis — three noted near lake. Willie Wagtail — one sitting on a wire fence. Yellow-faced Honeyeater — one dead bird on lake's edge. Goldfinch — a flock near water. Pacific Gull — one immature noted at beach. Black Cormorant — a flock of seven seen. Starling — only a couple near lake, common elsewhere. Black-winged Stilt — near 100 in western part of lake. Swamp Harrier — one bird noted. Pelican — a few were seen. Red-necked Stint — one dead bird found. White-faced Heron — one only seen. Black-faced Cuckoo-shrike — noted in small numbers in tea-tree.

Driving Home, Barwon Heads Road: Black-browed Albatross — several seen offshore. Pacific Gull — a flock of six seen near Barwon Heads. Silver Gull — very common. Grey Butcherbird — one seen in Ocean Grove. White-backed Magpie — quite plentiful. Ibis — a high-flying flock seen, Straw-necks? Galah — only three to four seen in Ocean Grove. Raven — several at roadside. Starling — too common. Pelican — three near Barwon Heads. Welcome Swallow — plentiful amongst dunes.

NEWSLETTER No. 153, Sept. 1978

Correspondence

To . . .

A.C.F.: Questionnaire reply; request for raffle tickets.

District Forester: Bulldozer at You Yangs.

City of South Barwon: Thanks.

Griffiths Bros.: re account error.

Neville Wilson, B. M. Lee, K. Quinn: Injured birds brochures.

Minister for Conservation: Mallards at Balyang.

R. C. Anderson: Orange-bellied Parrot survey.

Prime Minister, Treasurer: Federal funding for conservation.

Carolyn Fraser: Reply to request for Otways information.

From . . .

A.C.F.: Habitat, August Newsletter, raffle tickets

I.C.B.P.: Changes to constitution

G.E.C.: Newsletter and syllabus card.

Norman Favaloro: Pelican banding.

N.R.C.L.V.: Victoria's resources

City of South Barwon: Requesting discussion on Grass Tree Park.

Toowoomba F.N.C.: Advice re Newsletter.

Minister for Conservation: Mallards at Balyang.

Leon Kavanagh: Tours of Little Desert.
Executors Est. T. McKellar: Notice of death.
Hawthorn F.N.C.: Junior Naturalists (2).
Angair: News and Views.
Bird Observer.
Emu.

Report on the

EXCURSION TO OCEAN GROVE NATURE RESERVE AND GRASS TREE PARK

Sunday, 20 August, 1978
(By Graeme Tribe)

A cool, misty morning gave way to a mainly fine day with some scattered showers with south-west winds of 15 knots.

Twenty-four members inspected new planting areas, the Information Centre and heard future plans explained by Jack Wheeler and Owen Andrews. The Ocean Grove Reserve is steadily developing into a wonderful asset.

During a walk through to the koala compounds, two Silver-grey Possums were released — one being the first tagged possum from the Veterinary Clinic at Werribee to be released. Despite its value to science and liberation at the base of an attractive dry tree, this particular animal was last seen trundling deliberately back along the track leading to the car park and exit!

Gnat Orchids (*Acianthus exertus*) and Nodding Greenhoods (*Pterostylis nutans*) were putting on a great show and many of the planted species were also flowering well.

After lunch, a short stop was made at the Ocean Grove rubbish tip. The E.P.A. has ordered that no more reclamation be carried out in this area. This should help to retain this valuable estuarine habitat.

A brief stop was also made at Lake Murtnaghurt, which is full of water after the wet winter.

Some members observed one Giant Petrel at Black Rock sewerage outfall and between Charlemont and Horseshoe Bend roads, one of the many inundated paddocks had a large collection of water-birds. A pair of Blue-winged Shovelers, forty Spoonbills (Yellow-billed and Royal), White and Straw-necked Ibis, Black Swans, Herons and Gulls. A pair of Banded Plovers was also in the paddock.

The remainder of the day was spent at Grass Tree Park, Torquay. This small but valuable reserve is being managed and developed by South Barwon Council and this club has recently been invited to discuss future planning of the area with the engineer. Considering that a large section of the reserve was an ugly dump not so long ago, the transformation and recovery of the native vegetation is pleasing to note. We hope that the South Barwon Council will continue to see the area as mainly a "native" reserve. At Grass Tree Park, the Coast Tea-tree was observed flowering very early.

Pelican Banding

Norman Favaloro, of Mildura, asks members to keep an eye open for *pelicans with red-edged bands on their left leg* and if possible read the number on the bands. Dr. Favaloro has been studying and banding these birds at Mildura and contends that the sex of adult birds can be established — females have shorter bills.

Orange-bellied Parrot Survey

Members have taken part in two one-day surveys, at Point Wilson-Spit area and at Swan Island-Edward Point. Detailed records are being kept. Parrots were sighted both times and birds were feeding on arthrocnemum (Scrubby Glasswort), nipping off the top shoots. The survey is continuing.

NEWSLETTER No. 154, October 1978

General Meeting 5 September, 1978

Mr Marc Gottsch spoke on Victoria's "Red Wilderness", north-west corner—comprising the Kulkyne forest and the Sunset country. He revealed a great knowledge and deep love of the area, and by means of slides we were introduced to many of the lizards, animals and birds, such as the Spotted Bowerbird, the Mallee-fowl, Mitchell's Hopping-mouse and Burton's Legless Lizard. We learned much of the history of the area, starting with aboriginal grave sites and ending with the white man's attempts, often unsuccessful, to settle the area.

Correspondence

To . . .

R. C. Anderson: Parrot survey.

City of South Barwon: Grass Tree Park.

Ken Jenkin: Account.

Australian Reference Research Publications: Reply.

N. Favaloro: Reply.

From . . .

Vi Baldwin, G. Baverstock: Thanks.

Prime Minister's Department: Federal Funding for conservation.

Minister for Environment: Ditto.

Minister for Conservation: Vegetation Lara railway siding.

City of South Barwon: Acknowledgement, Grass Tree Park.

Rotary Club of Belmont: Advertising.

Mrs K. Hallmark: "Glendinning".

R. C. Anderson: Parrot survey.

Aus. Ref. Research Publications: Request for information

Geelong Regional Commission: I.C.I. Rearing — Report.

I.C.I.: Environment Effects statement.

C.C.V.: Notice; EPA Watchdog group; Campaign to Conserve Victoria

N.R.C.L.: Excursion.

National Parks Service: Werribee Gorge closure.

Mid-Murray F.N. Trust: Change of address.

Graeme Knott: Request for information.

St. George's Church: Regulations on use of hall.

A.C.F.: Notice of annual meeting.

For Library . .

Habitat: C.C.V. Newsletter.

A.C.F. Newsletter: SGAP Geelong Newsletter.

Parkwatch: Darling Downs Naturalist.

G.E.C. News: Latrobe Valley Naturalist.

Australian Plants: The Orchadian.

JUNIOR PAGES

RESCUING A BABY POSSUM

(by Lisa Pescott)

In July, 1978, a man found a young possum wandering across Noble Street. Because he was a Geelong Animal Welfare Society man he decided to look after the possum, but without luck, so he rang us up on the phone to ask if we could look after it for him. After handing the possum over to us, we got to work on feeding it.

We named her Tiny and at first fed her with a dolls' bottle on carnation milk and water. The first night with Tiny we had problems, for she had got out of the box we put her in and ate a plant which had been given to Dad, and which had been left on the sink. She also got into a bit of honey that was beside it. From then on we put her in a bird cage which was in a box by the heater. At night we fed her on grevillea, bottle-brush, apple and other things. During the day Mum kept Tiny under her jumper so Tiny would get the feeling it was a pouch and she was at home. It wasn't long before Tiny was too big for the cage and also it was holiday time, so she came with us and at night she stayed in the car. In the morning she was in trouble again, for she started to drink the milk out of Mum's breakfast and then the honey. During the second week of holidays we went to Tibooburra, and more problems because on Wednesday, 6 September we went for a drive and punctured the car radiator — but Tiny, snuggled up in Debbie's (my sister) jumper, had no worries at all.

From Tibooburra we went to Cameron's Corner and got flowers from Queensland, South Australia and New South Wales, and she had a flower from Victoria also.

When we were driving home, Tiny was a real menace because it was night, and she was wide awake when we tried to sleep, she kept climbing on Mum and Dad when they were driving the car, and liked to sit on their heads.

From then on, she has stayed in the car at night, and sleeps in the day in a box in our kitchen.

Dad says that he is going to let her go in the bush where she should be living, as soon as she is big enough to look after herself; that will be some time in November.

The Juniors meet each first Tuesday night in McPhillimy Hall, St. Georges Church, La Trobe Terrace, at 7.30 p.m. This is half-an-hour before the main club meeting begins. The Junior meeting lasts for about 45 minutes.

Among the subjects which are discussed at the meetings are: Wildflowers. a poster competition was held and prizes given to the junior members who made the best posters.

Prehistoric animals: in the last issue of *Geelong Naturalist*, some of these were described.

Lethal Australian animals: there are few animals which can kill human beings, but it is important to know how to identify these.

Marsupials: many of Australia's animals carry their young in a pouch. these are called marsupials, and include kangaroos, possums, phascogales and the koala.

Salt-water fish in our area: apart from the ones we fish for in the bay, there are many others which we rarely see.

The Junior meeting programme for the next few months is:

5 December: Projects and specimen display, presentation of prizes.

6 February: Salt-water fish in our area.

6 March: Interesting sea animals.

3 April: Marsupials.

The Junior excursion held in October at the Ocean Grove Nature Reserve was not well attended. next time, we hope that there will be a good attendance. Perhaps you could tell Mr. Woodland, Mr. King or Mrs. Quirk whether you think a Junior excursion is a good idea, and if so, where you would like to go, and when you could go.

Continued from page 59

Birds and plants mentioned in the text

Brush Turkey (Alecthura lathami).
White-browed Scrub Wren (Sericornis frontalis).
Yellow Robin (Eopsaltria australis).
Rufous Fantail (Rhipidura rufifrons).
Grey Fantail (Rhipidura fulginosa).
Lyrebird (Menura superba).
Grey Shrike-thrush (Colluri cincla harmonica).
Yellow-tailed Black Cockatoo (Calyptorhynchus funereus).
Crimson Rosella (Platycercus elegans).
Ground Thrush (Zoothera dauma).
Eastern Whipbird (Psophodes olivaceus)
Azure Kingfisher (Alcyone azurea).
Rainbow-bird (Merops ornatus).
White-throated Warbler (Gerygone olivacea).
Dollar-bird (Eurystomus oriontalis).
Rufous Whistler (Pachycephala rufiventris).
Negrohead Beech (Nothofagus moorei).
Myrtle Beech (Nothofagus cunninghamii).
Illawarra Flame-tree (Brachychiton acerifolium).
Snow Gum (Eucalyptus pauciflora var. alpina).
Grass-tree (Xanthorrhoea sp.).
Soft Tree-fern (Dicksonia antarctica).
Rough Tree-fern (Cyathea australis).
Fishbone Fern (Blechnum nudum).
Filmy Fern (Hymenophyllum sp.).
Kangaroo Fern (Microsorum diversigolium).
Elkhorn Fern (Platycerium bifurcatum)
Birds-nest Fern (Asplenium nidus).
Broad-leaved Apple (Angophera subvelutina).
River Oak (Casuarina cunninghamiana)

570.5
[illegible]

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OF VICTORIA

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VICTORIAN INLAND RECORDS OF OCEAN AND COASTAL SEA BIRDS

By Roy Wheeler

The occurrence of ocean and some coastal sea-birds over inland areas of Victoria is usually in the aftermath of severe gales, storms, cyclones and the like. However, I feel that the appearance of some coastal birds such as the Crested Tern over parts of western and north-western Victoria which many thousands of years ago was a vast inland sea, now known as the Murray Basin, is caused in some other way. This is only a theory but the ancestors of these birds roamed over this sea in the dim past and why should not the urge or instincts in later generations follow these ancient wanderings? It does seem strange to me that the majority of records for the State should be in the former Murray Basin area, with certain species. Herewith are all records that I have managed to gather and in them you too may agree with my theory. The species are listed in check list order with comments about each bird found.

Wandering Albatross (Diomedea exulans). The skull of an immature bird is in the National Museum B3969, found on the Anglesea Road 12 miles west of Geelong on May 21, 1951. Sent in by P. J. Wood. (*The Emu,* Vol. 52, page 274.)

Black-browed Albatross (Diomedea melanophrys). A live bird was found in a paddock approximately half a mile from the city of Hamilton on September 21, 1977. Mr Murray Gunn informed the Fisheries and Wildlife Division at Tower Hill State Game Reserve and Mr Paul Kelly came up and rescued it. Gale force winds were blowing from the south-west at the time. Mr Kelly fed the bird for a couple of days and finally released it from the Warrnambool breakwater.

White-headed Petrel (Pterodroma lessonii'. A bird was sent to the National Museum by J. B. Hodgson, of Hedley, near Yarram, on June 30, 1936. It was made a skin B218. (*The Emu,* Vol. 52, page 278.)

Black-winged Petrel (Pterodroma nigripennis). A dead bird was found by Mr Fred Smith and Mr Robert Swindley in a small stand of eucalypts on the eastern fringe of Wooloomanata Station near the You Yangs on April 14, 1974. The bird was 16 km from Corio Bay and about 40 km from Bass Strait. It was the first record for Victoria and the fourth for Australia. The bird was taken to the National Museum and the reference number B11339. (See the *Australian Bird Watcher* Vol. 6, No. 2, June 1975.)

Medium-billed Prion (Pachyptila salvini). A bird was sent to the National Museum by Mr J. B. Hodgson, of Hedley, near Yarram, on June 30, 1936. Skin B217. (*The Emu,* Vol. 52, page 279.)

2. A bird was found at Studley Park, near Melbourne, on July 2, 1949, by E. and R. Center. The skull and sternum is in the National Museum B2507. (*The Emu,* Vol. 52, page 279. Also in *The Emu* Vol. 49, page 144.)

3. A bird sent in from Mildura by Mr N. J. Favaloro on September 3, 1954, to the National Museum was a male, No. B5877.

4. A bird found at Meeniyan by Mr G. I. Hamilton was sent to the National Museum in August, 1966. Specimen B8674.

Thin-billed Prion (Pachyptila belcheri). One obtained at Doncaster by Mr F. I. Norman, of the Fisheries and Wildlife Division, on May 2, 1974.

Fairy Prion (Pachyptila turtur). Mr Rod Sympson, of Mt. Macedon, reported to the Bird Observers' Club on an Unusual Sight Record form that a live bird was found in the Ansett maintenance hangar at Tullamarine airport on the morning of February 5, 1976. The morning was calm and clear. The hangar is about a mile south of the airport. The bird later died.

Short-tailed Shearwater (Puffinus tenuirostris). 1. The National Museum received a specimen from Mr E. A. Conder, of Foster, on September 30, 1916. It was a female and its number is R6979.

2. Dr Leach, of bird book fame, forwarded to the National Museum a bird found at Kangaroo Ground by Mr J. Bourchier on April 24, 1925. Its register number is R9417.

3. Mr Dudley Dickison found a bird at Burwood on October 27, 1934. It was taken to the National Museum and it was a male and its number B136.

4. Mr Hughie Collins, of Edenhope, collected a bird on April 28, 1945, and sent it to the National Museum. It was a male and registered B1477.

5. The National Museum has a specimen sent in by Mr N. J. Favaloro in May, 1960, from Mildura. Its number is B8386.

5. On the night of April 29, 1963, a fierce southerly gale blew many mutton birds inland. One specimen was forwarded to the National Museum from Eildon Weir by Mr F. Simmons, dated April-May, 1963. It was a male No. B8103.

Other reports published in *Bird Notes* 1962-63 in *The Bird Observer* No. 381, August 1963, says that birds were reported over Healesville, Bayswater and many Melbourne suburbs.

6. The National Museum received a specimen from Dr A. G. Brown, of Colac, from Birregurra on April 26, 1968. A female and number W9267.

7. Mrs M. E. Baillie found a bird on the Mirboo North Road near Boolarra on April 25, 1973, and forwarded it to the National Museum. It was a female and the registered number B12191.

8. On April 29, 1974, *The Sun News Pictorial* reported that a severe storm had passed over the Mutton Bird breeding areas in Bass Strait and caught thousands of birds unaware and resulted in many being blown inland. One bird was found at Springmount, Creswick. Mr Jack Wheeler made a request in *Nature Notes* in the *Ballarat Courier* for further reports on May 25, 1974, but received no others.

9. A bird was found dead on the Salt Lake track in the Little Desert National Park on the morning of April 25, 1976, by Mr Clive Brownsea, the ranger in charge. It was in good condition and appeared to be a young bird.

10. Miss Lyn Mitchell saw a bird flying in a westerly direction at the Nunawading High School at 8.45 a.m. on October 10, 1977. There had been gale force winds blowing for several days. This was on a Bird Observers' Club Unusual Sight Report.

Wilson's Storm Petrel (Oceanites oceanites). In *Birds of Geelong,* by Sir Charles Belcher, on page 37 is the following: "A few days before Easter, 1910, a schoolboy saw a strange bird lying dead beneath a hedge by the cross roads at Marshalltown, distant about 8 miles from the nearest ocean beach. The bird was in splendid condition, evidently not long dead, without a mark of any sort on it. It had lost its bearings and had either struck some obstacle or simply died from exhaustion. The boy took it to his teacher at Germantown, Mr H. B. Williamson, whose love of nature we have to thank for this record, the first, I believe, for Victoria. He forwarded it to the authorities of the Melbourne Museum, where it may now be seen."

2. According to the Little Desert National Park list of 1970 it says "one specimen picked up near Kiata 1955." Information received from Mr Clive Brownsea, the ranger in charge, said it was found in November.

3. In 1966 I received from Mr Hal Thomas, of Mildura, the following note: A Wilson's Storm-petrel was picked up dead amongst the vines on a vineyard at Irymple on November 13, 1965. I think from memory that there had been turbulent weather a few days previously. The bird was found on the property of a relation of one of our members, Mr A. Hawtin, and fortunately it was taken to him. I made a rough skin of it and passed it on to Mr Favaloro, who in turn took it to the National Museum. It is now B8733 of the Museum collection.

White-faced Storm-petrel (Pelagodroma marina). There is a report in an early copy of *The Victorian Naturalist* of 1896 of this species being shot by a quail shooter in March in the Somerville district of the Mornington Peninsula.

2. On March 6, 1905, according to G. A. Keartland, a bird was found alive in a barrel in a large ironmongery shop in the city of Melbourne. The store had been closed for the weekend and when opened on the Monday the bird was found. This account is in North's *Nests and Eggs of Birds Found Breeding in Australia and Tasmania,* Vol. 4, page 356.

3. Mr Les Chandler, of Redcliffs, Vic., writing in the first issue of *The Australian Bird Watcher* of March, 1959, on "The First Bird Banding in Victoria" says: "Forty-four White-faced Storm-petrels were banded on Mud Island on January 10 and 11, 1914, by Messrs G. Finlay, J. Anderson, H. Slaney and the writer. One of these birds, with band number 6, was picked up dead at Gembrook, approximately 30-odd miles inland, in the middle of February of the same year. It was forwarded to Donald Macdonald of the Melbourne *Argus* by 'Ekans'." This finding was reported in *The Argus* in "Nature Notes and Queries" on March 13, 1914. Another Storm-petrel banded January 27, 1919, No. 256, was recovered at Rosebrook, near Port Fairy, on March 14, 1919.

4. A bird found at Eltham on February 26, 1969, was photographed by Jack Hyett and later released in the bay. See *The Bird Observer* September, 1969.

Australian Gannet (Morus serrator). A report from Mr Tim McKellar of finding a bird about a quarter of a mile from the sea at Torquay on March 15, 1966. It had been banded in New Zealand at Cape Kidnappers on December 19, 1965. See *The Bird Observer* No. 418, September, 1966.

The report in the Fraser National Park Bird List, "A pair on Coller Bay during a period of prolonged stormy weather in 1969" is a rather doubtful one, and more information is needed.

Lesser Frigate-bird (Fregata ariel). This extraordinary record of a purely tropical species was the third record for the species in Victoria, first at Mornington in 1902 and the second at Carrum in 1929. The bird was first seen over Whitfield in north-east Victoria on June 19, 1952. The following day it was picked up dead and later passed to the local Fisheries and Game inspector, Mr C. F. Howe, of Wangaratta, who forwarded it to the National Museum. It was a male and was made into a skin, No. B4038. Information given by the Melbourne Weather Bureau gave details of an intense depression off the New South Wales coast from June 13 to 18. This was from *The Emu* Vol. 52, pages 279-280.

Red-tailed Tropic-bird (Phaethon rubricauda). In *Wildlife* Vol. 7 No. 3, of March 1945, is the story regarding yet another tropical species coming to inland Victoria. It states, "The description given by Mr W. M. Kirkpatrick of a strange bird found dead on his property at Guildford leaves no doubt that the specimen was the Red-tailed Tropic-bird." Guildford is near Castlemaine and a considerable distance from the coast. Mr Kirkpatrick believes that it was blown in by a very strong south-easterly during the week of January 15, 1945.

Pacific Gull (Larus pacificus). I am indebted to Mr Bob Corbould, of Mildura, for this information. A bird in immature plumage, it was first seen at the Mildura tip on August 16, 1975. Jack Wheeler, of Geelong, sighted it at Apex Park on August 23 and also at Mildura bridge. Next sighting was in September by Bob Corbould at the Mildura racecourse. On February 1, 1976, it was sighted near Ryans swamp and again on February 14, then at Mildura bridge on February 29. The *Sunraysia Daily* photographed the bird on March 6 and it was not seen after that date. The Murray River was in flood at the time the bird was at Mildura and it could have followed the river up to Mildura from the sea.

Arctic Tern (Sterna paradisaea). "Whilst conducting research on bird populations for the McCoy Society for Field Investigation and Research, at Lake Purrumbete, near Camperdown, on December 13, 1953, I came upon the body of a tern near the top of the hill overlooking the lake. The bird had been dead for several days" — thus writes David G. Morgan in *The Emu* Vol. 54, page 58. The bird was later identified as an Arctic Tern in non-breeding plumage, the first record at that time for Victoria. A skeleton was made of the bird. B4756.

White-fronted Tern (Sterna striata). On September 20, 1959, the ranger picked up a Tern at Wyperfeld National Park in the north-west of the State. It was decapitated and found near the Wonga Hut. Mr H. E. Tarr received the bird and it was later identified at the National Museum. Severe storms in the first half of August, 1959, caused havoc amongst coastal sea-birds and 55 White-fronted Terns were found beach-washed. Details of this discovery are in *The Bird Observer* No. 339 of February, 1960, and in *The Emu* Vol. 60, page 264.

Crested Tern (Sterna bergii). Mr Hughie Collins, of Edenhope, kept a record of the birds of the district over many years in the later part of the last century and the early part of this. His list when he died was passed on to Mr Jack Hood, of Naracoorte, S.A. Jack gave me a rough copy of the list and it contained a Crested Tern record but unfortunately no date.

2. A Crested Tern banded as a nestling on Penguin Island, Beachport, S.A. on January 26, 1959, band number 070-20012, by Mr Jack Hood was recovered at the Goulburn Weir on March 6, 1959. Information sent by Mr David Purchase of the Australian Bird Banding Scheme, Canberra, A.C.T.

3. In a booklet *Birds of West Wimmera* by C. R. Crouch and K. V. Hately is a record of a Crested Tern at Kiata and another at Kaniva, both in 1959.

4. Mr Claude Austin collected a bird at a dam about 8 miles south of Nareen in August, 1959, and it was forwarded to the National Museum. It was a male and its register number B8235.

5. On March 22, 1967, Mr N. J. Favaloro received a bird from Nowingi, south of Mildura. It also was sent to the National Museum and its number B8756.

I would like to sincerely thank Mr Alan McEvey and his assistant at the National Museum for supplying me with details of many of these recoveries. My grateful thanks also to the others who supplied information in this very interesting research. By the way, the author of the paper in *The Emu* Vol. 52 mentioned in a number of these inland records was Mr W. Hitchcock, a former Curator of Birds at the National Museum.

Red-tailed Tropic-bird. Photo by Trevor Pescott

AN HOUR COUNT No. 28
KATHERINE, N.T.

(By Roy Wheeler)

Katherine is 346 km south of Darwin on the Stuart Highway. Its main attraction is the nearby Katherine Gorge and the Katherine Gorge National Park with its rugged picturesque scenery, the aboriginal paintings and its varied wildlife, particularly the birds. Thousands of tourists pass through Katherine each year. Another attraction is the Springvale Homestead, built on the Katherine River in 1880 and reputed to be the oldest homestead in this part of the Northern Territory.

According to the brochure on the Springvale Homestead Tourist Park, the lease on Springvale was taken out in 1876 by Dr W. Brown, a prominent pastoralist in South Australia. He appointed Alfred Giles as manager of this new enterprise near Katherine in the Territory. Alfred Giles was well known in the Territory as he travelled regularly up "the track" from South Australia with stock, supplying the telegraph stations with meat. He also was the first to follow the explorer Leichhardt to the Leichhardt Bar on the Roper River. Giles left South Australia in April, 1878, with 4000 head of cattle, 12,000 head of sheep and about 9 horses and over 40 men. He arrived at Springvale some 14 months later after an epic journey. The sheep travelled slower and arrived 20 months after departure. It was decided to build the homestead about 8 miles from the telegraph station near a billabong of the nearby Katherine River and by a permanent spring. The water from the spring was used for drinking water and recent tests have shown the spring to be radio-active.

Mrs Wheeler and I, during our visit to the Northern Territory, visited the homestead and enjoyed seeing over the historic homestead built with local stone and well preserved and containing many relics of those early days and including original letters written by Giles about his travels and his battles against flood, sickness, heat and the flies. The huge Indian rain trees planted in the early days just on a century ago provide wonderful shade for the tourist and the campers. The area has most picturesque surroundings. Mrs Wheeler before lunch on the day of our visit sat on the banks of the billabong and did an hour count, all birds seen and heard within binocular range from the one spot. Herewith are the details:

Katherine, N.T., October 18, 1977. On banks of the billabong at the Springvale Homestead. Fine and warm with some cloud about. 10.20 to 11.20 a.m. Birds in order of sighting: Papuan Cuckoo-shrike, 2. Rainbow-bird, 12; Peaceful Dove, 38; Fork-tailed Kite, 43; Mistletoe-bird, 4; Koel, 1; Yellow Figbird, 2; Olive-backed Oriole, 2; Blue-faced Honeyeater, 6; Black-ringed Finch, 22; Chestnut-breastead Finch, 25; Crow, 12; Brolga, 2; Red-collared Lorikeet, 8; Great Bowerbird, 2; Brown Honeyeater, 1; Willie Wag-tail, 1; Little Friarbird, 6; Darter, 1; Grey-crowned Babbler, 3; Yellow Weebill, 3; Nankeen Night Heron, 1; Azure Kingfisher, 1; Magpie-lark, 1; Bar-shouldered Dove, 2; Little Pied Cormorant, 1; White-gaped Honeyeater, 2; Dollar-bird, 1. Total 28 species and 210 individuals.

That afternoon we went with Mr. Mike Reed, the ranger of the Lower Katherine National Park, and visited a fine red lily lagoon about 16 km due west of Katherine and near the Katherine River and there seated on a log we did another hour count. Details as follow:—

Katherine, N.T. Red Lily Lagoon, 10 miles west of Katherine. Three observers, Mr Mike Reed and Roy and Vera Wheeler. 2 to 3 p.m. Fine and warm, little cloud. Birds in order of sighting: Little Friarbird, 8; Rainbow-bird, 12; Masked Plover, 14; Whistling Tree-ducks, 400; Magpie Lark, 16; Yellow-billed Spoonbill, 3; White-throated Warbler, 1; Brolga, 20; Cattle Egret, 5; Black Duck, 2; Cockatiel, 15; White Egret, 6; White Ibis, 3; Straw-necked Ibis, 40; Whistling Eagle, 2; White-faced Heron, 3; Grey-crowned Babbler, 4; Pelican, 1; Black-fronted Dotterel, 10; Little Black Cormorant, 3; White-necked Heron, 1; Darter, 2; Little Pied Cormorant, 2; Crested Pigeon, 1; Dollarbird, 6; Pied Butcherbird, 2; Green Pigmy Goose, 1; Rufous Whistler, 1; Bar-shouldered Dove, 2; Burdekin Duck, 2; Blue-winged Kookaburra, 1; Sacred Kingfisher, 1; Red-collared Lorikeet, 30; Black-faced Wood-swallow, 2. Total, 34 species and 622 individuals.

TANYBRYN CAMPOUT

Otways Campout June 3 to June 5, 1978. Belmont High School Camp at Tanybryn.

The camp is situated on the west side of Wild Dog Creek Road immediately south of the Colac-Apollo Bay Road junction.

West of the Wild Dog Creek Road is forest land, while on the east side, there is established dairy land, grass pasture with scattered groups of cypress and some native trees, and there are remnants of indigenous vegetation in some of the gullies.

The weather was very wet on Saturday, but the rain cleared on Sunday and Monday. (Rainfall: 14 inches from 1-6-78 to 3-6-78.)

Mammals: Two Bush Rats (*Rattus fuscipes*) were seen near the camp by spotlight. Spotlighting along the Wild Dog Creek Road near the camp where native vegetation is on both sides of the road was non-productive (only 2200 to 2230 hours on 4-6-78).

Birds. Thirty-five species recorded as follow: White-faced Heron — several on the farmland. Australian Goshawk — one seen over the camp. Wedge-tailed Eagle — two noted on Monday. Black-shouldered Kite — one bird perched on the top of a cypress tree in the farm across the road from the camp. Yellow-tailed Black Cockatoo — several seen. Gang-gang Cockatoo — a few only. King Parrot — about five female birds seen near the road junction. Crimson Rosella — quite common. Kookaburra — heard calling. Grey Fantail — a few seen, not plentiful. Willie Wagtail — one near the road junction. Golden Whistler — heard calling at the camp, early on Sunday morning. Olive Whistler — one seen. Yellow Robin — a few seen in several areas. Pink Robin — two males and two females seen in different areas including along Wild Dog Creek Road.

Grey Thrush — common and conspicuous. Mudlark — several around the dairy and farmland. Eastern Shrike-tit — two seen. Blackbird — common.

Ground Thrush — two in the campgrounds. Striated Thornbill — quite plentiful. Brown Thornbill — commonly seen in the undergrowth. Two found dead after the rain storm on Saturday. White-browed Scrub-wren — several recorded. Blue Wren — plentiful. White-throated Tree-creeper — several heard and seen. Yellow-winged Honeyeater — one seen. Crescent Honeyeater — several calling in the forest behind the camp. Eastern Spinebill — several seen. Red-browed Finch — a small flock in the grassed area of the camp. Goldfinch — a flock containing about eight individuals was noted. Starling — flocks seen over the cleared land. Australian Raven — only 10-12 seen over the farmland. Forest Raven — identified by their call. Pied Currawong — several seen over the forest. White-backed Magpie — a few in the cleared land opposite the camp.

(List compiled by Lawrie Conole and others.)

PLANT LIST

GLEICHENIACEAE:
  Gleichenia microphylla
  Scrambling Coral-fern.
HYMENOPHYLLACEAE:
  Hymenophyllum cupressiforme
  Common Filmy-fern.
  Mecodium australe
  Austral Filmy-fern.
CYATHEACEAE:
  Cyathea cunnimghamii
  Slender Tree-fern.
  Cyathea australis
  Rough Tree-fern.
DICKSONIACEAE:
  Dicksonia antarctica
  Soft Tree-fern.
DENNSTAEDTIACEAE:
  Culcita dubia
  Common Ground-fern.
  Hypolepis rugosula
  Ruddy Ground-fern.
  Pteridium esculentum
  Austral Bracken.
  Histiopteris incisa
  Bat's-wing Fern.
GRAMMITIDACEAE:
  Grammitis billardieri
  Finger Fern.
  Ctenopteris heterophylla
  Gipsy Fern.
POLLYPODIACEAE:
  Microsorium diversifolium
  Kangaroo Fern.
ASPLENIACEAE:
  Asplenium bulbiferum
  Mother Spleenwort.
ASPIDIACEAE:
  Polystichum proliferum
  Mother Shield-fern.
BLECHNACEAE:
  Blechnum procerum
  Hard Water-fern.
  Blechnum minus
  Soft Water-fern.
  Blechnum fluviatile
  Ray Water-fern.
  TOTAL FERNS: 18 sp.
GRAMINAEA:
  Tetrarrhena juncea
  Forest Wire-grass.
CYPERACEAE:
  Gahnia sp.
  Saw-sedge.
JUNCACEAE:
  Juncus pauciflorus
  Loose-flower Rush.
  Juncus planifolius
  Broad-leaf Rush.
URTICACEAE:
  Urtica incisa
  Scrub Nettle.
RANUNCULACEAE:
  Clematis aristata
  Australian clematis.
  Ranunculus lappaceus
  Common Buttercup.

MONIMIACEAE:
Hedycarya angustifolia
Austral Mulberry.
PITTOSPORACEAE:
Bursaria spinosa
Sweet Bursaria .
Billardiera longiflora
Purple Apple-berry.
ROSACEAE:
**Rubus sp,*
Blackberry.
Acaena anserinifolia
Bidgee-widgee.
MIMOSACEAE:
Acacia melanoxylon
Blackwood.
Acacia verticillata
Prickly Moses.
OXALIDACEAE:
Oxalis corniculata
Creeping Wood-sorrel.
RUTACEAE:
Phebalium squameum
Satinwood.
RHAMNACEAE:
Pomaderris aspera
Hazel Pomaderris.
MALVACEAE:
Gynatrix pulchella
Common Hemp-bush.
HYPERICACEAE:
Hypericul gramineum
Small St. John's Wort.
VIOLACEAE:
Viola hederacea
Ivy-leaf Violet.
THYMELACEAE:
Pimelea axiflora
Bootlace Bush.
MYRTACEAE:
Leptospermum juniperinum
Prickly Tea-tree.
Euc. viminalis
Manna Gum.
Euc. cypellocarpa
Mountain Grey-gum.
Euc. regnans
Mountain Ash.
OLEACEAE:
Notelaea ligustrina
Privet Mock-olive.
LAMIACEAE:
Mentha laxiflora
Forest Mint.
PLANTAGINACEAE:
Plantago varia
Variable Plantain.
**Plantago lanceolata*
Ribwort.
RUBIACEAE:
Coprosma hirtella
Rough Coprosma.
Coprosma quadrifida
Prickly Currant-bush.
CAPRIFOLIACEAE:
Sambucus gaudichaudiana
White Elderberry.
CAMPANULACEAE:
Pratia pedunculata
Trailing Pratia.
ASTERACEAE:
Olearia phlogopappa
Otway Daisy-bush.
Olearia argophylla
Musk Daisy-bush.
Cotula reptans
Creeping Cotula.
Senecio lautus
Variable Groundsel.
Senecio minimus
Groundsel.
**Cirsium vulgare*
Common Thistle.

NOTES ON CORELLAS

. . . and an opinion on destruction permits

(by Jim Watson)

Trevor Pescott's coverage of the Corella (Vol. 15) seemed worthy of comment, as my memory of this bird goes back to the years of World War I.

Yes, in those far-off days I lived in a little community some 18 miles out of Camperdown, and on trips into town in a horse-drawn buggy, I can remember the flocks of Long-billed Corellas feeding at the roadside en route. We might see two or three parties, each of about 30 birds, and they were so much a pattern of life in those days that we took little notice of them. By the time I left that district in the mid-1930s, Corellas had disappeared!

But not for keeps. On a short visit in the early 1960s, several were sighted, and to confirm my hopes that the species might be staging a revival, quite large flocks (upwards of 200 to 300 birds) were observed close by the Western Highway, north of Stawell, some two years ago. Supplemented by sizeable flocks in the Edenhope district and by numerous reports of individual sightings appearing in the B.O.C. journal *Bird Observer,* from time to time.

But our most effective sighting was in September, 1977, whilst travelling north near Deniliquin, when my wife and I came upon a large flock of cockies feeding in a roadside paddock. The ground was white with them, over many acres, and a rough count estimated the assemblage at about 400 to 500 birds, 75 per cent. of which appeared to be Long-billed Corellas! A few Galahs were also present, but the Long-bills certainly predominated.

No, despite Trevor's pessimistic report, I'd say these Cockatoos are at least holding their own, if not actually on the increase.

(A recent decision by some hare-brained politicians to grant licences willy-nilly to destroy the species, offers a sizeable threat. To contemplate the issue of licences to destroy these birds, also Galahs, by anyone who cares to make a 'phone call on the matter, deserves the condemnation of all naturalists.)

Parrots

A good day had been spent on Sunday, 10 September at Swan Island for observers in the Orange-bellied Parrot Survey. Up to 17 parrots had been sighted, flying and feeding on arthrocnemum in the almost exact location of the previous sighting. Later in the day Margaret Cameron observed them roosting in the lower branches of arthrocnemum. 7 to 10 were seen in wattle trees near the waterhole, including six lined up at the water's edge as if to drink. One flew off very high towards the military installations. The survey is involving a number of our members.

The conviction for the Fisheries and Wildlife Division of persons caught trapping *Blue-winged Parrots* near Lake Murdeduke, resulted in fines being imposed.

WHAT IS IT?

(by Ted Erry)

What IS it? This is possibly the questions most frequently asked in the bush by young and old alike. Whether it be bird or beetle, flower or fungus, rock or reptile, the finder needs a name for it, a handle that may be used in dealing with this object of interest. Nearly half a century ago, Neville Caley realised this need when he named his invaluable new book "What Bird is That?" and writers on various nature topics since have borrowed his idea.

Perhaps in this matter of identification, bird lovers have an easier problem than botanists, for, while Australian birds number about 700, a full plant census for Victoria alone exceeds 3000. But plants do stand still, and can be examined microscopically if necessary, whereas birds are very mobile, some extremely and exasperatingly so, thus preventing a brief inspection, let alone a careful study. Any camera enthusiast knows the relative difficulties of flower and bird photography.

The many books written about nature subjects in recent years have recruited numerous devotees and greatly helped those already interested. By the very nature of the subjects, it is inevitable that ornithology and botany are often taken together, for how can the study of a lovely red Correa be separated from that of an Eastern Spinebill visiting the pendent flowers in search of nectar?

And what of the moths, butterflies and beetles, the caterpillars, spiders and skinks that constantly distract attention as a banksia is examined or a camera set in position near a fantails' nest? Moths and beetles are difficult to specialise in, partly because the species are so numerous and often so much alike, and partly because, perhaps for those very reasons, there is insufficient literature available to enable a study to be undertaken.

The relatively small number of bird species makes it possible to illustrate each one in color within the limits of one volume. With plants this is impossible, not only because of the large number involved, but also because the differences between the species are often small. A microscope or a good hand lens may be needed to separate certain characteristics, such as the number and disposition of stamens, the arrangement of petals in a bud, or the number of compartments in a tiny seed vessel.

Often, too, one species may vary considerably. In the bird world, an Eastern Rosella is distinct from a Crimson Rosella, and, though they have been known to interbreed, the two are unlikely to be confused. But among plants hybrids are common. Although Tiny Violet and Ivy-leafed Violet are distinct, in some districts many gradations between them are to be found. The prickly Hedge Wattle is known to hybridise with at least three other species.

Even the well-known Manna Gum is variable, particularly in regard to the roughness of bark on the lower trunk.

Such variations are most likely due to the introduction of genes of related species through the more or less indiscriminate mixing of pollen that is a normal feature of plant life. Dr J. H. Willis (*Plants in Victoria,* 1972) states that Manna Gum is known to hybridise with about 20 other eucalypt species, including Swamp Gum and Red Gum. In the Anakie area, grevillea plants intermediate between Golden Grevillea and Steiglitz Grevillea are frequently found.

Though animals do not exhibit variation as obviously and as frequently as plants do, two species may be so similar that it is necessary to examine a bird specimen, for example, in the hand, to check details of the bill, or the number of tail or wing feathers, before being certain of its identity.

While size may be a useful clue in identifying snakes, birds or molluscs, it is often misleading in the plant world. Ovens Wattle, for instance, is usually a bushy shrub or a small tree, but there are forms that are completely prostrate. Ironbarks and Messmates are forest trees in their usual habitat, but close to the clifftops at Point Addis they are sprawling stunted shrubs. Many plants growing a metre high under normal conditions may be only an unrecognisable few centimetres in a dry season or on poor soil.

Although the task of identification in any branch of natural history will present difficulties at some time or other, a great deal can be achieved from the outset. Whatever the interest, certain basic knowledge is necessary to begin with. This does not entail long hours of laborious theoretical study. Practical work is best incorporated with the theory all along, not only to make the study more interesting, but also to fix the information more firmly in the mind. For instance, if you are interested in the evidence of past volcanic activity, a visit to Tower Hill, Mt. Anakie or even Mt. Duneed will add meaning to the books you read or the talks you hear. A book on insect life may be held in one hand while the other juggles a lens to ensure a more informative view of a scurrying ant. And astronomy, bewildering us with almost unbelievable distances and time spans as it does, is so much more real if we can recognise the Scorpion and readily pick out its super-giant Antares.

As may be expected, new subjects involve new expressions, sometimes a whole new vocabulary. Take the physiology of arthropods as an example. The exterior skeleton, the respiratory system, the mouth and leg parts are all so different from those of mammals that familiar words could not be expected to cope with the situation. A knowledge of this new vocabulary is necessary if one is to identify the various spiders, crabs, wasps and other joint-footed creatures. Relevant books on your chosen subject will illustrate these technical terms quite clearly. The presence of a fellow-enthusiast is of enormous benefit, and if a small group of people can join forces for examination and discussion of the topic, few problems will remain unsolved.

MEETING NOTES

The club produces a monthly Newsletter which is available at each meeting; it contains news of the meetings, excursions, reports, correspondence and other items of interest. The Newsletter is distributed to members who attend the meetings or who are prepared to pay for postage ($2.20 p.a. at present); but since it does contain many reports of interest to all club members, it has been decided to extract selected items each month and publish them in the *Geelong Naturalist.*

NOVEMBER NEWSLETTER, No. 155

General Meeting 3 October, 1978

Mr Bill Davis, of the A.C.F., spoke of Cape York and showed a movie film, "Last Days of a Wilderness". Cape York is an important part of Australia, where half of Australia's avifauna species are found, where some trees are over 800 years old, and contains some of our most important aboriginal cave paintings. Some of the highlights of the film included the Jardine River wilderness, mining and regeneration (?) at Weipa, and the problems of aboriginal communities there, Cape Tribulation (where the rain forests come right down to the sea), sand mining at Cape Flattery, the Cairns waterfront waders and the bird-life on Michaelmas Cay.

Mr. Davis also mentioned that the Coolart Lagoon, the subject of a previous talk and film to us, had been taken over by the State Government.

Little Desert Camp Oct. 20-22, 1978

Weather: Fine throughout, warm to hot. Twenty-one members camped around the Little Desert Lodge, 13 km south of Nhill on the Goroke Road, and four members motelled. The facilities of the lodge were available to all.

Saturday, 21 October: Morning walk. Best bird — Diamond Firetail. After inspecting live specimens — 2 Desert Copperhead Snakes and a legless lizard — brought by Mr Keith Hateley, the morning session led by Keith was spent at three roadside stops down the Goroke Road. First: A mill on a bore providing a tank of excellent water; also a stand of Apple Box (*Euc. bridgesiana*) — a rarity in the desert area. Second: Near a roadside gravel pit for a short botanical search. Third: Another botanical stop about 8 km from the lodge. Here dampiera, mint bushes, numerous orchids and other plants were in flower.

During the afternoon most members undertook a trip arranged by Whimpy Reichelt of Little Desert Tours and again we had Keith Hateley with us. We went into the Crater area, west of the Goroke Road, returning by a different track. Many stops were made to view and photograph the flowering plants. Sixteen species of orchids were recorded during the day. At a Lowan mound in the Crater area, Mr Hateley described the birds' nesting activities. Other members visited the lake on the outskirts of Nhill and recorded 48 species of birds for the afternoon. A slide session by Mr Reichelt completed a day full of interest.

Sunday, 22 October: In the morning members had the opportunity to visit a privately owned area of mallee scrub and view two active nesting mounds of the Lowan. Some saw the bird but waiting for photographs at both mounds proved a fruitless exercise — except for the mossies and flies! The afternoon was quite hot and the few members remaining in the Little Desert Lodge area were content with rewarding short walks into the scrub around the lodge and/or birding at the adjacent watering point and the Yellow Gum in full blossom.

Approximately 160 species of plants were listed in the area during the weekend. Sixty-four species of birds were recorded at the Little Desert Lodge area. Forty-eight species were recorded during the visit to the Nhill Lake. A full report, including lists of birds and plants, will be published in the *Geelong Naturalist.*

(G.M.)

Barwon River Excursion Oct. 28, 1978

Twenty members took part in the Barwon River excursion. Mr Stan Rowe was of assistance regarding the geology of the area, and found the greenstone exposed by quarrying very interesting, as it may have been washed down from some higher area. Some had been weathered down to green clay. Botanically, the excursion was more rewarding than anticipated. Highlights were the Creeping Monkey-flower in bloom near the river, and the wealth of wildflowers, including Onion Orchid, Milkmaids, Blue Grass Lilies, on the eastern slope below the quarry. Members appreciated the beauty and unspoiled character of the river, and the views across the countryside. Birds seen included a Golden Bronze-cuckoo preening itself, Black-faced Cuckoo-shrikes, Red-rumped Parrots and Eastern Rosellas. We have written to the landowner, Mr. Robert George, thanking him for allowing us on his property, and pointing out the importance and value of the eastern slope of Georges Hill.

Correspondence

To:

Roy Wheeler — sympathy.

Jack Ealey — get well wishes.

North Geelong High School enclosing magazines, etc.

Geelong Advertiser — register of organisations.

R. C. Cameron — magazine.

Griffiths Bros. — re account.

Ken Jenkin — re account.

Ranger, Little Desert National Park — advice on campout.

Robert Finlay — S.G.A.P. order for books.

Minister for Conservation — ICI environment effects statement, objection.

From:

North Geelong High School — request for material — Community Day.

R. G. Cameron — request for magazine.

Br. J. C. Kissane — request for Mt. Cole submission.

Michael Fisher — change of address.

C.C.V. — notice of gala dinner; school holiday shows; request for nominees to L.C.C.

Shadow Minister for Conservation — Labor's election policy.

Minister for Conservation — mallards at Balyang. ICI environment effects statement.

Ranger, Little Desert National Park — reply.

Geelong Grammar School Community Services Committee — donation.

Monash University — echidnas.

N.R.C.L.V. — Boort excursion.

N.R.C.L.V. — Mt Cobbler expedition.

Save Our Bushland Action Comm. — economics and forestry seminar.

Vic. Conservation Trust — annual report.

C.C.V. — minutes.

Visa Books — "The Politics of Pollution".

A.C.F., G.E.C,. Portland F.N.C. — newsletters.

Old Geelong Naturalists Wanted

Mr J. Ros Garnet, of 23 Camdon St., Pascoe Vale 3044, has requested copies or photo copies of No. 46 (No. 2 of Vol. 6), No. 49, No. 50 or any subsequent issues of Vol. 7 to complete his set. NOTE: this is NOT the current series, but were published in the 1920s and 1930s.

DECEMBER NEWSLETTER, No. 156

General Meeting 7 November 1978

Aquarium and fresh-water fish expert, Mr Bill McWilliam, showed photographs and spoke about the Darwin area, relative to habitats of the many species of native fishes found in Northern Australia. Highlight of the evening was the series of slides of some of these fishes, which had been collected in an attempt to introduce them to aquarium conditions. Little seems to be known of the range of species, the classification of them, their biology or conservation needs.

Correspondence

To:

Minister for Planning and Conservation — suggesting preservation of Otways through planning controls.

Mr. Robert George — advising him of the national history value of Georges Hill, Ceres, and thanks.

Geelong Grammar School — thanks for donation.

Secretary, G.W.S.T. — use of Stan Lewis walking track by mini and trail bikes.

Br. J. Kissane — Mt. Cole Submission (none available but we could photo copy for him).

Greg. Binns, W.V.F.N.C.A. — recommendations.

Secretary V.F.N.C.A. — recommendation re over-population wildlife.

Charles Anderson (2) — parrot survey.

Director F. & W.L. — mallards at Balyang (offer to carry out population study).

Geelong Regional Library — directory information.

From:

Southcombe family — thanks.

Mr Roy Wheeler — thanks.

L. Conole — bird list.

Jane Abbott — parrot survey.

Forests Commission — You Yangs boneseed eradication.

Br. J. Kissane — Mt. Cole Submission.

Mr Jim Watson — request for magazines.

Charles Anderson — parrot survey.

Director Fisheries & Wildlife — thanks for help in parrot survey; mallards at Balyang.

AVEC Education Officer: Children's Film Festival (request for prizes and technical advice).

Principal Fyans Park P.S. — thanks.

C.C.V. — North Central Area; notice of annual meeting.

I.C.I. — progress report: Avifauna study at Pt. Wilson.

L.C.C. — Corangamite study final recommendations.

For Library

Parkwatch — Victorian Naturalist.

A.C.F. Newsletter — Latrobe Valley Naturalist.

G.E.C. Newsletter — Sun Nat (2).

Portland F.N.C. Newsletter — beach use.

Flora Reserve

Mr Mathison and Mr Errey have visited the Eumeralla Flora and Fauna Reserve and put in stakes to define the boundary. They are to meet shortly with the Melbourne members of the committee of management.

Wedge Light Gannets

Mr Wheeler reported that the gannets at Wedge Light are now nesting on three-quarters of the platform area. He had counted 21 nests with eggs, 3 nests with young, and 6 nests part completed. He also told of inaccuracies of a report in *The Sun* of birds at Fort Island.

Orange-bellied Parrots

Miss Ramsay reported two parrots at Swan Island on 5 November, and Mr Tribe had seen 2 on 14 November. Mr Wheeler reported that they used to be seen beside Hospital Lake, Connewarre.

Mallards

Members may be interested in the following flow of correspondence.

We wrote to Minister for Conservation re Balyang Mallards, asking for action on removal.

Mr. Borthwick's reply (12 October): "I have discussed this matter with the Director of Fisheries and Wildlife Division who has advised me that he is aware of the present situation in respect to the Mallard ducks. However, the Division will need to collect more detailed information before it is possible to proceed with the implementation of any plan to control the species.

"In the circumstances I regret that until this work has been undertaken, the Division will be unable to take action to reduce the population of Mallard ducks at the Balyang Sanctuary at the present time."

We replied that we would be prepared to carry out a population study of the birds at Balyang.

Mr J. C. F. Wharton has since replied (21 November): "In response to your letter of 14 November, in which you offer the assistance of your members, I wish to advise that the Division has recently collected more information on Mallards on public waters, and will be presenting it to the Minister for Conservation in the immediate future.

"Information before the Division at present indicates that, in the Geelong district, there are 60-100 Mallards at Balyang, and 6 at Aireys Inlet. If you have any other information, I would be pleased to receive it.

"Thank you for your kind offer of assistance. I trust that we will be able to take action against the Mallards at Balyang soon."

A DAWN VIGIL AT BALYANG

(by Laurie Conole)

On Thursday, 29th June, I arrived at Balyang at about 5 minutes to 6 o'clock in the morning. The reason for my early morning visit was to count and observe the Little Pied Cormorants. I stayed until 8.00, then moved downstream and took a few more notes until 8.10 a.m. The weather was a bit chilly and the moon was out.

6.00: Mallards and Hoary-headed Grebes are active already and I can hear Spur-winged Plovers nearby.

6.10: Dusky Moorhens are screeching about something.

6.15: Even in the poor light I can see about 200-220 Little Pieds.

6.45: Nearly all birds but the Little Pieds are active.

6.50: The sun is beginning to rise, no movement in the Cormorant camp.

6.55: Light is approaching fast, all the waterfowl are out and feeding.

7.00: The Starlings are making one hell of a racket. Several pairs of Grey Teal among the Coots.

7.05: The Mallards just chased a cat away. It's light enough to read and write but the Little Pieds haven't moved.

7.10: White plumed Honeyeaters are calling now.

7.12: My estimate now of Cormorant numbers is between 260-270. To all intents and purposes it's now daylight but the Cormorants haven't moved at all.

7.20: A Swan has materialised from somewhere — probably from the island. Magpies have started carolling and I've counted about 60-70 Mallards and half-breeds.

7.30: There is one dead Pelican on the island. Two White-faced Herons have just arrived and parked in the dead tree.

7.32: A Large Black Cormorant has just arrived and disturbed the Little Pieds — some of which are stretching after waking so abruptly.

7.35: Two Pelicans just flew in from the north-east.

7.40: Mobs of Starlings and two Spur-winged Plovers just arrived. Some Little Pieds are leaving, heading east down the Barwon River.

7.45: The bulk of the Little Pieds left in a loose flock — all heading downstream. The latest count would indicate the numbers at between 270-280. Two Little Ravens calling from a nearby smoke-stack.

7.50: There are still about 30-40 Cormorants here. Two Indian Mynas have arrived and Silver Gulls arriving from the north-east.

8.00: I'm leaving now to follow the Little Pieds downstream as far as I can go.

8.05: Just as I'm leaving about 20-25 Little Pieds are leaving too, and Red Wattle-birds are arriving.

8.10: The Cormorants have followed the river as far as I can see.

My theory is that *maybe* they go to the Connewarre Lake system or somewhere this side of it. Maybe we could co-ordinate an exercise to find if they do or not.

Report on the

LERDERDERG EXCURSION

18 JUNE, 1978

(by Rolf Baldwin)

Far into the last century old Waterloo veterans used to sit and yarn over the great deeds accomplished on that famous Sunday, 18 June. In much the same spirit Field Naturalists of our day will tell how on another Sunday, 18th June, they braved the elements to go down into the Lerderderg Gorge and, what is more, came out again. Their effort was in the best naturalist tradition of "press on regardless of the weather". There was a foregathering, too, for more than twenty cars were in the cavalcade.

The weather was the most notable feature of the day. The day before had been very wet and even as we assembled at the Post Office it was raining quite heavily. So it continued off and on throughout the day, whilst even the intervals between the showers scowled through fog out of cloudy skies. In such circumstances the ascent of Mount Blackwood was incontinently abandoned, for we ran into heavy fog at the Pentland Hills church, so thick that when we came to the gate to the Forest lookout, we could barely see the gate itself, let alone any view, whilst the temperature was dismally low and biting. As we descended into the bush, however, on the northern slope of the spur, we ran out of the fog at least, and could see all around us in the grey, dripping bush. Everything was soaking, though on the tops of those steep ranges this is no great problem for the ground is very rocky and offers firm standing even in the worst conditions.

As we gathered for a brief conference on the little flat by the dam, where Squarebottle's Track and the Razorback Track leave the main road, which was to be the base for the day, it was obvious that conditions were not going to mend. Nevertheless, it was a unanimous decision that we should continue with the second part of our planned programme. Many decided to stay in the neighbourhood of the cars, whilst about two dozen undertook the three kilometres or so of steep walking that led to the bottom of the gorge. Even though the conditions were poor, this walk was most enjoyable. There was no wind; the silent, brooding bush of the ridges and the more luxuriant scrub and forest of the gorge itself had an austere charm of their own and perhaps this grey and dripping guise is the most typical of the many moods of this rugged country.

On such a day birds naturally lie close. All we saw were a couple of White-throated Tree-creepers, a couple of Yellow Robins, a Grey Fantail and a few indeterminate honeyeaters and wrens down by the river. In fact several members remarked on the fewness of the birds and the strange, brooding silence which has always been a characteristic of this bush. Even at the best of times it is very quiet, save for the occasional piping of a Tree-creeper, the "beet-root, beet-root" of a group of Crimson Rosellas, the ringing call of a currawong, or the harsh shrieks of the White Cockatoos which are the familiar spirits of the ranges. Botanically there was more. *Hakea tenuifolia* was in fragrant flower in many places, some very elegant bushes of *Grevillea alpina* were seen, just coming into flower, a few interesting fungi were scattered along the track and higher, by the cars, there were several gardens of very beautiful pink and white heath. In the gorge itself, as well as the usual timber, there were several fine specimens of the Blue Gum (*E. bicostata*) that is native to this locality and on the way down we noticed several stands of the dwarfed eucalypts of various species that are to be found here and there along the ridges right through to Bullarto. So much was potential, rather than actual, awaiting the touch of spring. Until one has seen them in full glory, one cannot really imagine the rich colour of the great gardens of daviesia, dillwynia, platylobium, paltenaea and beard-heath along the ridges, nor the exquisite beauty of the mosses and trailing ferns and pelargoniums in the crevices of the riverside cliffs.

By common consent there was no specimen table when the "river people" rejoined the "ridge people" at about 3 p.m., with the rain still intermittently streaming down. "Home, James" was the thought uppermost in nearly all minds, so that was the upshot. Three more miles of gravel forest road, very interesting in more clement weather, brought us to the bitumen road at the old Junction, and then it was a plain, though sodden, run through Greendale and Ballan back to Geelong. Despite the weather, it had been an interesting day and many seemed to feel that they would like to study more carefully and frequently this virtually unknown tract of country that lies so close to our own doors.

Lerderderg Gorge Excursion, 18-6-78. The weather was invariably drizzle alternating with heavy rain — with fog when we first arrived.

En-route: Australian and Little Ravens — large numbers in paddocks. White-backed Magpie — large numbers also. White-necked Heron — one on outskirts of Bacchus Marsh. White-faced Heron — several in flooded paddocks. Black Swan — two at Lovely Banks and several others. Nankeen Kestrel — one also seen hovering outside of Bacchus Marsh. Little Grebe — several seen in various dams. Starling — seven flocks seen. Brown Falcon — one on trip up and one on trip back. Grey Fantail — a pair flew out of a tree as the cars approached. Welcome Swallow — flying over and beside road. Spur-winged Plover — several pairs noted. Mudlark — several seen, generally near dams.

Lerderderg Gorge, 11.15 a.m. to 2.45 p.m. Orange-winged Sittella — one seen in the gorge. Grey Thrush — one on bank of Lerderderg River. Eastern Spinebill — one male feeding on pink heath. White-throated Tree-creeper — several seen, not heard. Little Eagle — one seen above the gorge near a hilltop. Hooded Robin — one male flew across track. Brown Thornbill — a flock of four to six seen near track. Yellow-tailed Black Cockatoo — several heard, note was made of where they'd been feeding. White-backed Magpie — several heard in the bush. Australian Raven — a few heard and seen. Little Raven — a few heard only. Crimson Rosella — heard several and saw one. Blue Wren — only a couple seen.

(Bird list compiled by Laurie Conole.)

JUNIOR PAGES

Although the Juniors' excursion to the Ocean Grove Nature Reserve on 14 October, 1978, was not well attended, one member prepared the following refort for *Geelong Naturalist:*

Ocean Grove Nature Reserve 14 October, 1978. Excursion report by Michael Conole. 1215 to 1530 hours. Weather cloudy, showers, slight breeze. Bird list — at, and on the way to the Reserve:

Raven sp.
Field-wren outside hut.
Straw-necked Ibis.
White Ibis.
Spur-winged Plover near car park.
Grey Currawong near track.
Grey Butcherbird.
Blackbird.

Yellow-winged Honeyeater in the rain near the bird hide.

Spotted Pardalote right in front of us on a tree about one foot away.

Yellow-tailed Thornbill on fence near the car park.

Mudlark on the side of the road.

Silvereye and 3 or 4 nests.

White-backed Magpie and possible nest.

Noisy Miner.
Spotted Turtle-dove.
Skylark on the trip down.
Galahs.
Two pairs of Blue Wrens.
Black-faced Cuckoo-shrike overhead.
Eastern Spinebill.
White-browed Scrub-wren.

Kestrel overhead when we were on the walk.

Two pairs of Eastern Rosellas looking for nest sites.

Starling.

Diamond Firetail in front of the car on the way down.

Scarlet Robin and baby on fence near the car park.

White-necked Heron in pond eating a yabby.

Red Wattle-bird.
Silver Gull.
Kookaburra.

Plant list

Kangaroo Apple
Kangaroo Paw
Fringe Lily
Black She-oak
Drooping She-oak
Chocolate Plant
Trigger-plant
Hibiscus
Love Creeper
Alpine Grevillea
Prickly Wattle
Golden Wattle
Black Wattle
Silver Banksia
Running Postman
Scented Sundew
Climbing Sundew
Tea-tree
Manna Gum

Mammals

Three Koalas were seen.

I would like to thank very much Mr King, Miss Ramsay and Mr Woodland. I am very grateful to you all.

—Michael Conole

SPECIMEN TABLE LIST
30 October, 1978

3 October 1978

Arthrocnemum from bush eaten by Orange-bellied Parrots at Swan Island.

Dendrobium kinceanum — Coffs Harbour.

Collection of wildflowers — Jerilderie.

Homeria breyniana (One-leaf Cape Tulip) from Winchelsea, an introduced poisonous and noxious weed.

Egg washed up on beach at Portland. It was felt that this was probably not that of a seabird.

Acacia lineata — Western Victoria.

Snow Gum leaves — Mt. Buffalo.

Cup Moth larvae, Hairy caterpillars, Spiders' nests and egg cocoons with spiderlings — found on river red gums at Pollocksford.

7 November 1978

Young Tree Dragon — Grass Tree Park.
Emperor Gum Moth — Highton.
Wolf Spider with egg sac — Ocean Grove.
Orb-weaving Spider.
Mouse skeleton — Stonehaven.
Melaleuca fulgens, Melaleuca elliptica, Melaleuca radula, Melaleuca steedmani — grown at Belmont.

Banksias, *E. leucoxylonrosea,* Mallee form; *C. violacea* — grown at Coleraine.

Wildflowers from Junior lecture.
Rocks from Ceres area, Barwon River excursion:

Epidiorite, coarse grained; Epidiorite, fine grained; Granite, much weathered; Quartz, Limey nodule, Limey nodule, iron stained; sedimentary rock — Georges Hill, Ceres.
Limestone, Barrabool Hills sandstone, Barabool Hills sandstone — flank of Georges Hill, Ceres.
Basalt, fine grained, from interior of valley flow; Basalt, aerated, from top of valley flow or sheet flow — Fyansford.

Save our Wildflowers!

POSTER COMPETITION

The poster competition, "Save Our Wildflowers", was a great success with a number of Junior members taking part. Entries were received at the November meeting, and prizes were given to the Juniors who produced the best posters.

Although it is difficult to reproduce the quality of the entries, because size and color cannot be shown, the following two photographs give some idea of the posters received.

OFFICE BEARERS 1978 79

President:
Mr. Geoff Mathison, "Bona Vista", Winchelsea.
(Phone 67 2355)

Immediate Past President:
Mr. E. G. (Ted) Errey, 3 Leonard Street, Belmont.
(Phone 43 2848)

Vice-presidents:
Mr. Jack Wheeler, 72 James Street, Belmont.
(Phone 43 1200)
Mr. David King, 8 Truam Street, Portarlington.
(Phone 59 3023)

Honorary Secretary:
Mrs. Valda Dedman, 69 North Valley Road, Highton.
(Phone 43 2374)

Assistant Hon. Secretary:
Mr. Gordon McCarthy, 26 Fairbrae Avenue, Belmont.
(Phone 43 1826)

Honorary Treasurer:
Mr. John Ealey, Unit 3, 20 Peary Street, Belmont.
(Phone 43 4381)

Assistant Hon. Treasurer:
Mrs. Betty Quirk, Lot 2, Crimea Street, Drysdale.
(Phone 51 2996)

Honorary Editor:
Mr. Trevor Pescott, 4 Victoria Terrace, Belmont.
(Phone 43 4368)

Excursion Secretary:
Mr. Graeme Tribe, 27 Madeley St., Ocean Grove
(Phone 55 2302)

Honorary Librarian:
Miss Leila Ramsay, 8/76 Barrabool Road, Highton.
(Phone 43 3661)

Committee:
Mr. Ian Woodland, 33 Grant Street, Newtown.
(Phone 21 6517)
Mr. Rolf Baldwin, 2 Kyle Avenue, Belmont.
(Phone 43 3763)
Mr. Geoff Gayner, Lot 80, Jenkins Drive, Lara.
(Phone 82 2182)

Auditor:
Miss Jean Hoggart.

Ken Jenkin Print

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ORANGE BELLIED PARROT Survey at Swan Island

(by Valda Dedman)

During the second half of 1978 the Geelong Field Naturalists Club took part in a survey being carried out by the Fisheries and Wildlife Division on the Orange-bellied Parrot (*Neophema chrysogaster*). This involved a total of 23 members on five separate occasions, as well as individual visits by Jane Abbott and others during late October and early November. We all learned a great deal from helping with this survey. Many of us had not seen the parrot before, and our knowledge of its behaviour and of salt marsh vegetation have increased considerably.

The survey was initiated because over the past 60 years the total Orange-bellied Parrot population has declined, until today the bird is regarded as an endangered species, one of the world's rarest parrots. It was further prompted by the decision by I.C.I. Australia to build a petrochemical complex at Point Wilson, close to the Spit, which is generally regarded as the primary wintering area of this rare bird.

Previous Records

The Orange-bellied Parrot was first described in 1787 from a specimen probably obtained from Tasmania during Cook's third voyage. It has never been plentiful nor widespread, being confined to parts of Tasmania and the coastal areas in south-east Australia, from Yorke Peninsula to Port Phillip Bay, with an isolated population recorded from the Sydney area around the turn of the century. An upsurge in numbers apparently occurred in 1839, 1856 and 1918, particularly in South Australia, but since then there has been a steady decline in overall numbers.

In Victoria the bird was first recorded from Queenscliff in 1881; Belcher records it at the salt works and at Paraparap in 1902 and writes of five birds at the mouth of the Bream Creek in 1912, and it was not recorded again in this State until 1932, when parrots were seen at Werribee. The Spit area near Werribee has since been the only place on the mainland where large numbers (fifty-plus) of Orange-bellied Parrots have been recorded in recent years. They have been recorded from other areas around Geelong, the largest population being found on Swan Island, with others at Edward Point, Reedy Lake and Lake Connewarre. They have also been recorded from Port Campbell, Portland and Warrnambool.

It is a winter visitor, arriving about March and leaving for parts unknown by November. It breeds in summer, possibly in south-west Tasmania, but so far no recent nesting sites have been found. The bird may not always have left the mainland for breeding. It is recorded as nesting in the Sydney area, and Belcher reports a nest having been cut out of a dead tree at Jan Juc in the spring of 1911, and says that "in January, 1902, when a late hay-crop was being brought in on Mr G. C. Noble's Merrijig Estate, it was numerous, hunting in small flocks, the grass-strips along the edges of the yield."[1]

Description

Orange-bellied Parrots are quite small (205mm including 105 mm tail), but appear larger because of a plump body. They are attractive birds, especially adult male with their brilliant grass green backs. This green is the chief distinguishing feature in the field, together with the characteristic buzzing alarm call. "Orange-bellied" (*chrysogaster*) refers to the bright orange patch which occurs on the lower belly only, between the thighs, and may be difficult to see when the birds are feeding on the ground, although it is fairly obvious when the parrots are sitting up on top of high bushes. In flight the bright yellow underneath the tail is very prominent. Males have a conspicuous blue frontal band edged with turquoise. Females are a duller green and lack the turquoise upper border of the frontal band, and juveniles are even more subdued in colour with a smaller orange ventral patch. It is very difficult to distinguish between females and juveniles in the field.

Areas covered by Fisheries and Wildlife Division survey

The Bird Observers' Club, the Warrnambool Field Naturalists' Club and the Geelong Field Naturalists Club combined with the Fisheries and Wildlife Division to survey the various areas of salt marsh along the Victorian coast where previous sightings of the Orange-bellied Parrot had been recorded. The Warrnambool Field Naturalists' Club regularly surveyed the coastal strip in the Port Fairy, Yambuk and Killarney areas, but no parrots were recorded during 1978. The Bird Observers' Club covered the Point Wilson Spit area where the greatest concentration of parrots was recorded, and after a preliminary survey day by the combined groups at Point Wilson, the Geelong Field Naturalists Club concentrated on Swan Island, with visits to other local salt marsh areas such as the western margins of Swan Bay, Edward Point and Point Henry. No parrots were seen in any locality other than Swan Island, where there appeared to be a small local population. Owing to military occupation of the eastern half of Swan Island, we were restricted to the western sector, that is the golf course and the salt marsh areas immediately surrounding it, and a dune area to the north-east of the golf course.

Methods employed in survey

Initially we tried to cover the whole area systematically by the spread-out party proceeding in a series of straight lines, and noting on a survey sheet the number of parrots flushed, their position and activity. A stake was placed in the spot where the birds were first sighted each time, and vegetation samples collected from all plants within a two-metre radius of this, with details noted of their height and percentage flowering or fruiting.

This method was later found to be impracticable owing to the nature of the terrain, the fragility of the salt marsh plants and the restricted locality which the parrots were found to frequent. Samples of plants where the parrots were sighted were usually taken and passed on to the Botany Group for identification. Often samples could be taken from the exact bush on which parrots had been feeding.

For the first part of each survey we walked around most of the salt marsh in the designated area, and along the margins of the golf course. As it became clear that Orange-bellied Parrots were unlikely to be seen away from the south-west corner of the island, we concentrated our efforts in this area, hoping to discover more of the birds' behaviour and to make a more accurate count of the number and composition of the flock.

Apart from one day, 3rd September, when it rained continuously and no parrots were recorded, the weather was generally fine and sunny with little wind and many fine sightings were obtained. It must be remembered that most of our members taking part had never seen an Orange-bellied Parrot before, so there was always great excitement when the first parrot was seen by each group. Later we learned to curb this excitement, disturb the parrots less and record more carefully their position and behaviour.

Dates of Survey

Full scale surveys at Swan Island were made on 19th August, 3rd September, 24th September and 15th October. On the last occasion observing was carried on continuously by small parties from dawn till dusk. Further visits were made by small groups or individuals on 16th October, 19th October, 25th October, 1st November, 5th November and 3rd December. No parrots were seen after 5th November.

Sightings

A total of 32 separate sightings of individuals or groups of parrots was recorded, the largest flock being 17 birds. This may have been the total number of Orange-bellied Parrots on the island. The locality where they were recorded was very restricted indeed, although there seemed to be adequate suitable habitat on other parts of the island. Apart from parrots which flew in or out of the area, we never recorded them away from the south-west corner of Swan Island, where they were either in the salt marsh coastal strip or the adjoining margins of the golf course. Some were observed resting in trees on this part of the course. When first observed the parrots were often feeding, and when disturbed they would generally fly up making their buzzing alarm call, and land 50 to 100 metres away. They tended to fly back and forth over the same area. When disturbed from feeding on the golf course itself they would fly back to the salt marsh.

Feeding behaviour and preferences

The Orange-bellied Parrots on Swan Island appear to spend a great deal of their time in bushes of shrubby glasswort (*Arthrocnemum arbusculum*), which is the dominant species in the salt marsh vegetation. When feeding they sit on top of the bush and pick off the tips of this fleshy plant. They seem to prefer the tallest bushes (2m high), and often the more orange-coloured ones. They feed rapidly, and examination of arthrocnemum bushes where parrots had just been feeding revealed that a large number of end segments had been nipped off. As the season progressed tiny insignificant yellow flowers were seen on 10 per cent. to 50 per cent. of each bush, but the parrots did not appear to eat them. Their appetite for the tips, however, was voracious. To those of us who tried it, arthrocnemum tastes salty and juicy.

From late September onwards the parrots ventured more and more on to the edges of the golf course, especially the unmown areas, where introduced grasses such as Field Madder (*Sheradia arvensis*) and Mouse-ear Chickweed (*Cerastrium glomeratum*) were seeding. They also ate the prostrate fleshy Beaded Glasswort (*Salicornia quinqueflora*), but we never saw parrots eating other salt marsh plants, such as atriplex or frankenia.

Drinking

No Orange-bellied Parrot was actually observed drinking. On 24th September, at 1445 hours, Margaret Cameron saw six birds at the waterhole on the southern perimeter of the golf course "lined up as if to drink". On 15th October, a parrot, which had been observed for ten minutes eating seeds from the short grass bordering the golf course, flew over to the waterhole, perched on a post at one corner, disappeared out of range of vision, presumably to the water, flew up to the post again and rested a short while before flying off high to the north-east. It is more likely that it drank rather than bathed, as it made no attempt either to shake itself or to preen when it reappeared.

Resting and roosting

On several occasions, usually in the afternoon, Orange-bellied Parrots were observed resting in large cypresses or wattle trees. They may also have rested low down (and therefore hidden) in arthrocnemum bushes. We shall have to examine in greater detail this aspect of their behaviour, and also try to discover where they roost and where they go when they fly right away from the south-west corner of Swan Island. At these times they fly much higher. Parrots were observed flying in from the east in the early morning, and on the only occasion (15th October) when the survey continued on into the late afternoon the whole flock of 15-17 birds suddenly rose up out of the arthrocnemum at 1815 hours and flew high away to the south-east. It was thought they might have been migrating, as only one bird was left at Point Wilson by this date, but Ira Savage went back early next morning and saw seven parrots feeding on the salt marsh, and birds were again observed until the beginning of November.

Importance of Swan Island in the ecology of the orange-bellied parrot

Observations made during 1978, both by the Fisheries and Wildlife teams and by Richard Loyn and Chris Chandler for I.C.I. Australia, would indicate that the total number of birds visiting Victoria during winter is less than 100. About one-fifth of these regularly visit Swan Island during daylight hours. If industrial development at Point Wilson upset the Orange-bellied Parrots, Swan Island, as the secondary wintering area, will become increasingly valuable. The present restricted access to the island could be vital to a continuing world population.

Future survey plans

A tremendous amount remains to be done to build up a full record of the status and behaviour of the Orange-bellied Parrot at Swan Island. We do not know the relative proportions of males, females and juveniles in the flock. It will be interesting to determine the number of full adult males when the study begins again in April, 1979, when the parrots are expected to return from their summer breeding areas, and to note any plumage changes as the season progresses. Will the size of the flock be the same? Will other parts of the island be used by the parrots? What plants will they be eating? Will we be able to establish where they roost at night, what they do when they are not feeding, whether they need fresh water? Is the waterhole on the edge of the golf course, or the height of the arthrocnemum significant to the choice of the south-west corner of the island for daytime feeding? We need to find out more about the flowering and seeding of the various plants and use this information in relation to the parrots' feeding preferences.

The survey is an ongoing one. We shall require many helpers throughout 1979. Several days have already been planned. By careful and systematic observation and recording we hope to fill in some of the gaps in our knowledge of the Orange-bellied Parrot.

Other groups will be covering other possible Victorian wintering grounds, and it is hoped that co-ordinated studies will be made by survey teams in South Australia and Tasmania. It is important that breeding areas be discovered and protected, if this rare bird is to survive. Any information from readers about past or present sightings of the Orange-bellied Parrot would be appreciated, and should be sent either to Charles Anderson of the Fisheries and Wildlife Division, Melbourne, or to Valda Dedman, secretary of the Geelong Field Naturalists Club.

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SOME CURIOSITIES OF BOTANICAL NOMENCLATURE

(by James A. Baines)

Pre-Linnean botanical names of plants often consisted of a Latin noun followed by many descriptive adjectives that were supposed to be given in full because they were necessary to distinguish one species from another. The binomial system that became universal from 1753 (Linnaeus) reduced these names to manageable proportions, although modern botanists have added a third name to distinguish between varieties (but prefixed by the abbreviation var.).

Popular parlance talks of "jawbreakers" among the botanical names, but most of these become meaningful if enthusiasts take the trouble to find out the Latin and Greek elements that constitute them (with additional sources in names of persons and places, and from other languages). Reference to "A Handbook to Plants in Victoria" by J. H. Willis, reveals several very long botanical names, such as Phlegmatospermum cochlearinum, a cruciferous plant with no vernacular name; Prasophyllum appendiculatum, Eastern Leek-orchid; Polypompholyx tenella, Pink Bladderwort (called Pink Fans in W.A., where another species, P. multifida, is called Pink Petticoats), in family Lentibulariaceae; Pseudanthus divaricatissimus, Tangled Pseudanthus, in Euphorbiaceae; Tieghemopanax sambucifolius, Elderberry Panax, now in Polyscias, family Araliaceae; and the introduced sp. Parthenocissus tricuspidatus, so-called Boston Ivy, but native of Japan, in Vitaceae.

In contrast to the above long names, two very short names can be quoted from the same work: Poa fax, Scaly Meadow-grass, which must surely be a candidate for the shortest in the world — and it was named by the author of the book, James H. Willis, and a colleague at that time (1956) in the National Herbarium, South Yarra, Melb., Arthur B. Court; and Carex iynx, Cyperaceae, which could be called the "Mr X" of sedges!

The longest binomial plant name I have come across is probably a species of family Araliaceae from the forests of the Solomon Islands: Boerlagiodendron puniceopolliniforum, which was named by an American botanist, B. C. Stone, in 1962, the generic name with 16 letters and the specific epithet with 19, total 35! A generic name with 20 letters is Pseudostenosiphonium, a genus of family Acanthaceae endemic to Ceylon (now Sri Lanka) with nine species. The Asian genus of grasses, Pseudopogonatherum, of two species, extends to Australia.

Perusal of "A Dictionary of the Flowering Plants and Ferns" by J. C. Willis (revised by H. K. Airy Shaw), 7th edition, shows the following generic names of only three letters each: Ada, Ate, Bea, Bia, Hua, Ion, Ipe, Iva, Kua, Lea, Nil, Nux, Poa, Rea, Uva, Uxi, Zaa and Zea; of these only Poa (grasses) and Zea (maize) are well-known, and some (e.g. Lea Stokes, a syn. of Leea Linn.) are no longer valid. I have listed 115 generic names with only four letters, the best-known of which are Ammi (bishop's weed); Acer (maples); Arum (arum lilies); Bixa (annatto), hence family Bixaceae; Cepa (onion), now a syn. of Allium; Coix (Job's tears); Cola (kola nuts); Dais (kannabast, Sth. Africa); Disa (Sth. African orchids); Faba (beans), hence Fabaceae; Geum (avens); Hebe (speedwells, syn. Veronica); Hoya (tropical climbers); Inga, of family Mimosaceae, of 200 tropical American spp.; Iris (flags), hence Iridaceae; Itea (as in Acacia iteaphylla, with leaves like Itea); Ixia (Sth. African bulbs); Mora (American legumes; not to be confused with Morus, mulberry, hence Moraceae); Musa (bananas), hence Musaceae; Nipa (nipa palms); Olax (olax, in Vic.), hence Olacaceae; Olea (olives), hence Oleaceae; Rosa (roses), hence Rosaceae; Rapa (turnips), now a syn. of Brassica; Ruta (rue), hence Rutaceae; Sida, with 200 malvaceous spp.; Sium (water parsnip); Thea (tea), now a syn. of Camellia, hence Theaceae, Ulex (gorse or furze); Ilex (holly).

There is only one generic name of only two letters: Aa, a genus of tropical American orchids, of obscure significance. In "Generic Names of Orchids" by R. E. Schultes and A. S. Pease, it is suggested that the author, Reichenbach the son, took the first and last letters of Altensteinia, the genus from which he separated it, and named it Aa so that it would always head any list of genera of plants; but they also mention that Hoehne, improbably, guessed that it was named in honour of Pieter van der Aa, a Dutchman. The French botanist Aublet set up a genus of Lauraceae from tropical America (Guiana and West Indies) named Aiouea, which consists entirely of six vowels!

Although Aublet created many odd-looking generic names, many of them derived from indigenous Amerindian languages, he was far outdone in this regard by Michel Adanson, 1727-1806, a French botanist of Scottish ancestry (the family name was originally Adamson). A great number of his names are invalid synonyms, as he refused to recognise any of the vast number of names established by Linnaeus because he objected to the latter's classification system, but what makes his names so strange is that he usually put them in a form that did not conform to normal botanical usage. For example, he usually avoided the termination -ia (other botanists often added these letters to Adanson names!), and examples will illustrate this point — Abulfali, Agati, Amberboi, Blatti, Brami, Courondi, Cupameni, Cunto, Duan-contu, Detris, Epimeredi, Flox (now Lychnis, not Phlox), Gasoul, Horau, Ilmu, Iericontis, Jabotapita, Japarandiba, Katou-Tsjeree, Kalanchoe, Kadali, Kara-angolam, Kare-Kandel, Kotsjiletti, Korosvel, Kreidek, Koddampuli, Knifa, Kielboul, Codda-Pana, Lablab, Lass, Mibora, Manilkara, Mangas, Marurang, Mailelou, Micambe, Moringa, Mangle, Nagassari, Nanari, Nhandiroba, Naravel, Nagatampo, Nalagu, Naringi, Notjo, Narukila, Niotoutt, Niruri, Ouret, Ovilla, Oftia, Olfa, Pattara, Patsjotti, Pavate, Panios, Panoe, Pariaticu, Penar-valli, Pupal, Pongam, Pongati, Priva, Ravenala, Silybum (syn. Sillybum Hasskari), Salken, Solori, Tema, Todda-pana, Tapanava, Tangaraca, Tanghekolli, Tovara, Tsjeru-caniram, Tilco, Talinum, Tobira, Tolpis, Tula, Tsjinkin, Tsubaki, Tsiem-tani, Toulichiba, Tsia, Tsutsusi, Tekel, Tetrahit, Upata, Upoxis, Upoda, Udani, Ulva, Umari, Urucu, Ucacou, Vosacan, Virea, Vada-Kodi, Schundapana, and many more!

Finally, here is a list of names that would accord well with Linnaeus's sexual system of classification. They are given without elucidation of meaning, many of them being rather obvious, but others will repay investigation by broad minded readers!

Phallus (stinkhorn fungus genus); Phallobata (fungi); Amorphophallus (Araceae); Orchis (Orchidaceae); Scrotalaria (Lamiaceae); Pygeum (ditto); Acianthus fornicatus; Vulvaria (= Chenopodium); Clitoria (Leguminosae); Vaginaria Kunth (Amaryllidaceae); Vaginularia (fern); Hymenaea, etc.; Hysterophorus, etc.; Testicularia; Utricularia; Aristolochia pubera; Trema; Thladiantha; Cynometra; Fornicaria; Urinaria; Testicolo odoreso, common name in Italian for Spiranthes (Lady's Tresses).

Some genera have an enormous number of species, often varying according to whether the botanists publishing monographs are "splitters" or "lumpers". Heading the list is Hieracium, hawkweeds, which has 5000 apomictic microspecies or 1000 macrospecies; then come Senecio, groundsels, with 2500 spp.; Euphorbia, spurges, 2000; Astragalus, milk-vetches, 2000; Piper, peppers, 2000; Carex, sedges, 1750; Solanum, nightshades, potatoes, etc., 1700; Eupatorium, hemp agrimony, Joe-Pye Weed, etc., 1200; Peperomia, 1000 plus; Vernonia, 10000; Pleurothallis, 1000. Both Eugenia and Mesembryanthemum formerly had over 1000 spp. each, but both have now been restricted, with a number of other genera taking over for many spp.; the latter had 1000 spp. sensu lato, but now 350 spp. sensu stricto (i.e. in the narrow sense). Bulbophyllum is a huge orchid genus of over 900 spp. (of which 569 are native in New Guinea), and Dendrobium also has 900 (with 512 in New Guinea). Begonia has 900 different species (not just horticultural varieties)! Oxalis and Ficus have 800 spp., a number once set for Acacia, but new spp. of the last-named genus are constantly being found in Australia, and it is hard to set an accurate figure; the latest book on the wattles, "Acacias of New South Wales" by Inez Armitage, 1978, gives the total for Australia as "more than 700" (with 195 in NSW). Australia's other huge genus, Eucalyptus, has had in recent years a number of former species reduced to synonymy or to varietal status, and the present total of accepted spp. is more than 450, with a number of extra new spp. recently described. Stan Kelly's "Eucalypts" illustrated 250 spp. in vol. 1 (1971) and 258 in vol. 2 (1978), total 508 plates. Other genera with Australian representatives include Croton, 750 spp. in the world; Selaginella, 700; Indigofera, 700; Asplenium, 650; Crotalaria, 650; Cyathea, 600; Pandanus, 600; Phyllanthus, 600; Dioscorea, 600; Sedum, 600; Habenaria, 600; Centaurea, 600 (Loranthus, in the wide sense, had 600 spp., but it has been split into many different genera); Cassia, 550; Cyperus, 550; Polygala (which has native spp. as well as the South African coastal noxious weed), 550; Rhododendron (which has only one Australian native sp., R. lochae, from Mt. Bellenden Ker, Nth. Qld.), 550; Passiflora, 500; Helichryum, 500; Ipomoea, 500; Panicum, 500; Ranunculus, 400; Geranium, 400; Ixora, 400; Hibiscus, 300; Juncus, 300; Scirpus, 300; Stipa, 300; Sterculia, 300; Poa, 300; Lobelia, 300; Terminalia, 250; Grevillea, 250; Clematis, 250; Convolvulus, 250; Pelargonium, 250; Rubus, 250; Epilobium, 215; Gaultheria, 210; Elaeocarpus, 200; Hoya, 200; Atriplex, 200; and many more over 200 spp. A figure given for Hakea is 140 spp., the same as for Melaleuca; Stylidium has 136, Olearia 100 and Utricularia 120 spp. By contrast, Australia has some unique monotypic spp. that have a family to themselves, e.g., Cephalotus follicularis, Albany Pitcher Plant; Brunonia australis, Blue Pincushion; and Davidsonia pruriens, Davidson Plum (which is also in Fiji); respectively in Cephalotaceae, Brunoniaceae and Davidsoniaceae.

The following botanists, after whom genera were named, have surnames that have "botanical" meanings: Linnaeus (Carl von Linne), linden-tree (in Swedish); Karl L. Blume, flower (in German); Joseph Decaisne, of the oak-trees (in French); Eichler (3 botanists), man with acorns (in German); Forster, Johann Reinhold & Georg, forester (German); Gaertner, Joseph, gardener (in

German); Lindley, John, linden wood (English); Bentham, George, village where bent-grass is common; Laureiro, Joa, laurel tree (Portuguese).

Quisqualis, named by Linnaeus in 1762, is an odd generic name from Latin quis, who? and qualis, what It resulted from a play on word by Rumphius. The Malay name for this plant is Udani (= forest plant, cf. orang-utan, man of the forest), rendered in Dutch as hoedanig, meaning who?-what? Rumphius (German-born, Rumpf), based at Amboina (now Ambon, Indonesia), perpetrated this pun because of the variability of the plant's growth, and L. took over the name from the pre-Linnean botanist. Q. indica, Rangoon Creeper, native to S. India, Burma and Malaya, is found in north-east Queensland.

Anagram Names. Sinoga was named by S. T. Blake as a back-spelling anagram of Agonis for a monotypic myrtaceous genus related to the W.A. endemic genus of 12 species (e.g. A. flexuosa, W.A. Peppermint, grown in our gardens), in this case confined to Qld. Pycreus, a monotypic genus of sedges in north-west Western Australia, is an anagram of Cyperus in the same family, Cyperaceae. Spach named Eresda as an anagram of Reseda, the mignonette genus, and a Bolivian genus was named Lobivia, an anagram of the country's name. The most remarkable example, however, is the set of generic names coined from Filago L. (Asteraceae or Compositae) by Cassini: Gifola, Ifloga, Lifago, Logfia and Oglifa in the same family!

SOME SUBURBAN GARDEN BIRDS — NEWTOWN

(by Theo Trickett)

Rainbow Lorikeets

On 27/7/78 the Rainbow Lorikeets were behaving as if courtship dances were in progress. The two Musk Lorikeets which had come in with the Rainbows in December '77 seemed to have paired off each with a Rainbow. Bowing and dipping, beaking, preening each other, the pairs or quartettes could all be seen on different TV aerials and on our bird-baths and lawns.

Three baby lorikeets duly arrived, two on 8/12/78 and another about a week later. The juveniles have mottled yellow and orange-red on the breast, brown bills, and green collars. By March '79 their breasts are almost wholly the colour of the adult, although the neck-bands are still green. But they know how to screech to bring nectar down to the pots — and once given it, they are quiet — for a while.

On 11/3/79 (a hot day) a new young one appeared with the parents, and its voice was the same rusty-wheel rasp of the first young ones of 1975.

The young ones do not give any indication of a misalliance between the two types of lorikeets.

The Musk Lorikeets came in regularly with the Rainbows over the whole of the year, but they have not re-appeared since mid-February this year.

I whistle to call in the Rainbows when they arrive in nearby trees, and it's amusing to hear them screeching in answer and flying in for the nectar.

Song Thrush is around the garden all the year; it tuned up on 5/6/78 and its song is not heard after December.

Grey Thrush turned up on 21/6/78. *Golden Whistler* recorded again on 27/5/78, 14/7/78 and 1/8/78.

Eastern Rosella: On 24/5/78 on our silver birches and walking around the garden eating dill seeds, etc. It answered me when I whistled for the Rainbow Lorikeets and I THINK it said "Pretty Joey" close to me. It was around the garden for three days.

White Backed Magpies: 2 young ones were being fed by parents on 5/11/78 in a close neighbor's tree. That made four resident magpies.

Crimson Rosellas: 3 immatures on bird bath on 1/5/78 and 7 immatures on 14/5/78.

Kookaburras have been regularly seen about the area again this year after many years absence. We have had a welcome dawn chorus from them most of this year. A neighbor said they were nesting further down river.

Goldfinches have nested every year in one or other of our fruit trees. No nests this year though and very few goldfinches about the garden.

Silvereyes: Young have been fed by parents at dripping bag from November to March.

Magpie Larks: 2 dependent young recorded on 11/11/78 and a new one was being fed on the telephone wires on 23/2/79.

Tree Sparrows: 10 were lined up on the kitchen window ledge late last year during a severe rain storm. Two babies were being fed at the dripping bags on 21/2/79. Am unable to find nests in our garden.

Greenfinches: Frequent visitors to the bird baths each summer; not seen during winter.

Spotted Doves: Daily visitors to the garden.

Small Honeyeaters for which the nectar pots were originally installed are being crowded out by the bigger nectar-eaters. We have to find an answer to this problem.

Red Wattle-birds: This year there has been an extraordinarily large number of young ones in our garden. It can be somewhat hazardous to go down to the nectar pots at times — "reds" fly in from one tree or another, sometimes even at ankle level, and sometimes one has to dodge them at face level. Here is the record of one nesting family:

24/8/78: About 4 ft. from a footpath, some 10 ft. up in a black wattle — parents building.

14/9/78: Changeover of parents on nest.

18/9/78: Squeaks of babies; silent when people passing but quite audible when their parents nearby.

21/9/78: Louder squeaks of babies.

28/9/78: Even louder . . . and two feathered heads at nest; one baby had a swipe at a passing insect, then first one flapped his feathered wings and

then the other. Parent came in and regurgitated into each gape.
2/10/78: Babies had flown.

The very young birds do not have red wattles, although they do have the lime-yellow abdomen. As the young bird matures the red wattles grow to the size of those of the adult.

The many red-wattle birds as well as other nectar eaters means that the nectar now vanishes in about 10 minutes to a quarter hour, so the "reds" have taken to raiding the silvereyes' dripping bags. They no longer search for insects on the bags, but really push that big beak through the netting, get a beak full, and stand back to swallow!

It is a marvel that the nest lasts through until the babies leave it — it is a thoroughly ramshackle affair, twigs, grasses and leaves flung together; nevertheless the parent can sit on it and be all but invisible, and it seems to stand up to the strain of the feathered young.

SOME BIRDS OF FYANS PARK

Black Shouldered Kites: We occasionally see one, and sometimes a pair, around the area; and on 14th January this year I watched two young being fed by the parents. The youngsters utter the most dreadful cries of welcome — rather like a small animal in pain. The next weekend I saw a parent take what looked like a starling and put it on their boxthorn perch for them.

Nankeen Kestrels: Often seen in the area.

Nankeen Night Herons: Occasionally seen flying up or down stream.

Reed Warblers: Arrived 11/9/78. Not heard after 11/2/79.

Black Faced Cuckoo Shrikes: On 7/1/79 and again two days later there were two of these birds in the trees in the park. Their distinctive call has a special fascination for me, so it was a thrill to see them here.

White Necked Herons: Seen on the river-bank during July, 1978; and in the same month a *Yellow Billed Spoonbill* and a *Large White Egret*. *White Faced Herons* have not been as numerous as usual this year.

Caspian Tern: One with a black cap patrolling the river on 1/10/78 and one fishing over the river on 26/11/78.

Indian Mynahs: 4 seen in February '79.

Purple Crowned Lorikeets: Crowds visit flowering eucalypts in Fyans Park and also neighbor's trees.

Little Grassbirds: Call from the river's edge on the Highton side of the river.

Pallid Cuckoo: Usually fairly common in the area, but only heard once this year, on 1/8/78.

Grey Butcher-bird: Calls during most months of the year.

PRESIDENT'S REPORT 1978

I believe 1978 has been a year of steady growth for the club. The progress has not been as much as I had hoped for two years ago, nevertheless it is advancement.

Membership

This has quietly increased by 38 through the year, but should we be advertising our club and its activities more widely? Membership gives strength to the voice of an organisation and usually helps the financial position.

Meetings and excursions

Attendances at the monthly meetings and excursions were well maintained, and generally speaking, our speakers were again of a high standard. Camp-outs also kept their interest for members and were directed more to studying particular areas.

The Flinders Island excursion, in the nature of a trial, proved successful and similar trips will be organised in the future so long as there is sufficient interest.

Botany group

This group continues to flourish. The new study course commenced in March, 1978, brought more members to the group and field days are now conducted on a regular basis with emphasis on recording plants in L.C.C. uncommitted areas and on reserves and Crown land not well known to us botanically.

Bird study group

Some members expressed a wish to learn more about birds and bird identification and Mr. Trevor Pescott undertook to form this group. This is a new activity and will be of value to members and to the club.

Intermediate group

In March, 1979, some of the younger members formed themselves into a group so that they could arrange their own projects and outings. This is an excellent idea, filling a gap between the juniors and seniors, and all members should encourage membership of this new group.

Bird Atlassing

Under the enthusiastic guidance of Miss Margaret Cameron some members are assisting in bird listing for the Bird Atlas Scheme. This again is a new activity. We appreciate Margaret's keenness and organising ability in this area.

Orange-bellied parrot survey

At the request of the Fisheries and Wildlife Division, members are participating in this important survey. Our main area of operation is Swan Island and this survey will continue for at least another year.

Monthly stall and annual fete

The monthly stall and fête returned more than $900, a wonderful effort by all concerned — donors, workers and buyers. The proceeds for the year are to be deposited in a Special Purposes Fund. Our thanks to Francis and Elsie Poole and Mrs Lily Sherwood, who first proposed and operate the stall. Thank you also to Mrs Beryl Campbell, whose home is the venue for the fete.

Your club has been involved in many other activities throughout the year — conservation issues, working bees, requests for information and support. All these matters have been noted in our Newsletters from time to time and I do not propose to elaborate upon them.

Committee

Unfortunately Miss Leila Ramsay and Mr Ian Woodland have had to resign from the Committee this year although Miss Ramsay will continue as librarian. These members have been great contributors to club activities. Leila, through the Library, the Botany Group and constructive and thoughtful suggestions at all times while Ian's work with the Juniors, donations of books and equipment, and general club and committee work has also been greatly appreciated.

We are fortunate that these two members have been replaced by people who will prove to be just as dedicated and valuable to the Committee and the club. Mr Ivan Tilbury and Mr Norman Povey.

I wish to record my thanks and sincere gratitude to all the members of the Committee for the time and effort expended on club affairs and for the considerate support they have given me throughout my term.

I also want to thank all other members for their support and especially those who work quietly and so effectively for the club, doing such things as preparing the meeting-place, addressing and posting magazines and newsletters, collecting the newsletter from the printer, recording birds and plants on outings and specimens at meetings; auditing our financial records, assisting the librarian and so on and on. Small but vital tasks for the satisfactory functioning of the club.

If we are to achieve the objects of this club, "to stimulate interest in Natural History and to preserve and protect flora and fauna", we will need the continued support and encouragement of all the members, the participation of all members. Your Committee cannot do it alone, wonderful though they be!

BARWON RIVER EXCURSION October, 1978

(by Valda Dedman)

A walk along the Barwon River on a Saturday afternoon can be a most rewarding experience, as members found on the half day excursion on 28 October, 1978. Twenty of us walked from the road near Ceres Bridge, across the paddocks to the river, then upstream for a mile or so to the ruins of an old farmhouse, from which we returned by way of George's Hill.

The river here is very attractive, winding between high banks, and overhung with redgums. After recent rain it was rising and flowing strongly, and we frequently had to detour from the path along the edge. Tangled masses of lignum were in flower, the tiny creamy petals in masses along the cylindrical stems. Black Wattles and Swamp Paperbark were also flowering. Tree Violets were common near the river, and there was a wonderful display of Purple Monkey Flower creeping over a muddy bank at the water's edge.

In the grass, just above flood level, Tall Bluebells were scattered, and Shell Grass seed heads shivered in the breeze. We wondered if a new crop of Red Gums, then 25 cm high, would survive the pressures of grazing. Most of the grasses seen were introduced species, such as Yorkshire Fog Grass and a variety of clovers, but we also saw plenty of Kangaroo Grass. Thistles, especially the slender and the large variegated, were common, particularly around the ruins where they ran riot.

The most surprising botanical finds were on the eastern flank of George's Hill, where there is an unused area, useless to the farmer, so much of the original vegetation has been retained. We found Milkmaids, Blue Grass-lilies and Black-anther Flax-lilies, Scaly Buttons and drifts of Onion Orchids.

The bird watchers also had a good time, although it was the quiet part of the day for bird activity. Blue Wrens, Red-rumped Parrots and White-plumed Honeyeaters were common near the river, where we also saw Eastern Rosellas and a Black-faced Cuckoo-shrike. A number of White Ibis were feeding in the paddocks on the north side of Ceres bridge. Just before we left we had an excellent view of a Golden Bronze-cuckoo preening itself.

The area is geologically rich, for within a radius of a few kilometres, samples of nearly all the important geological formations in the Geelong district may be found, including the very "new", a mere one million years old, and the very old, formed perhaps 500 million years ago.

Opposite us, on the north bank of the river, knobbly chunks of basalt littered the surface. Some of these are the very edge of a sheet lava flow of one million years ago, probably originating from the Mt. Anakie area, which spread out over the plains as far as the Barwon River. Most of the basalt rocks we saw, though, were a million years older. These would be the top of a valley lava flow, possibly from the Native Hut Creek area, which flowed down the ancestral Barwon, displacing it to the south. The bluestone cutting through which we had passed on the road at Fyansford is part of this flow, which is 20m thick there. The bed of the river at Buckleys Falls is the same formation. There were three flows of this type, and the basalt is quite distinct from that of the sheet flows, being much denser and chemically different.

So the north bank of the river forms the edge of the flat basalt plains of the Western District of Victoria. On its southern side the river is flanked by the Barrabool Hills, composed of sandstone laid down in fresh water swamps some 100 million years ago and upthrust about the time of the lava flows. Both basalt (bluestone) and sandstone have been used for building materials, as we saw in the ruins of "Lonely Farm".

In one or two places we came across limey nodules, formed from material leached out of the surrounding rocks and redeposited, and traces of a limestone outcrop, formed beneath the sea about 50 million years ago.

George's Hill is one of the most interesting areas in the whole of the Geelong region, as far as geology is concerned. We found pieces of quartz here, and a few very weathered granite boulders, their surface "rotten", which were embedded with the main rocks on the hill. The latter are composed of epidiorite, extremely hard and very ancient, an estimated 500 million years old. The granite is similar to, but less plentiful than that found at the Dog Rocks, Batesford, and was formed some 250 million years ago.

Epidiorite, and the associated denser diabase are extremely rare rocks in Victoria, and indeed in Australia. In the Geelong district this dark green metamorphic rock is found only at the Dog Rocks and on a few hilltops near Ceres, and elsewhere in Victoria a similar rock only occurs at Mt. William and near Heathcote. Owing to its extreme hardness (we had to use a geologist's pick to chip off fragments for inspection) epidiorite, or "greenstone", was much prized by the aborigines for axe heads and the like, and was used for trading right around Victoria. The canoe tree we saw at the river's edge also told of aboriginal occupation of the area. A short way upstream are the remains of what is thought to be an aboriginal stone fish trap.

The greenstone we saw varies in texture. Some was fine-grained and dense; some much coarser and not quite so hard; in places it had even weathered to a soft green clay. Some years ago a quarrying company started to cut into the side of the hill, hoping to use the stone, after polishing, for facing buildings, or monumental headstones, but the project was abandoned, because a continuous face could not be found. This outcrop is in fact not a uniform deposit, but a mass of large boulders, with some embedded much younger granite. According to geologist Stan Roew, who was with us, this could indicate "mass wastage". In other words, this particular deposit has come from higher area, long since gone. In the light of these observations, and backed up by further research, we may have to rethink some of our local geological history.

This excursion proved a very pleasant way to spend a warm sunny afternoon. We appreciated the beauty and unspoiled character of the river, and the views across the countryside, where the hills stood out on the flat plains. It was pleasing, too, to find an area of such outstanding interest so close to the city.

Plant list

(supplied by Leila Ramsay)

Hymenanthera dentata: Tree Violet.
Muehlenbeckia cunninghamii: Tangled lignum.
Acacia mearnsii: Black wattle.
Acacia armata: Hedge wattle.
Eucalyptus camaldulensis: River Red Gum.
Melaleuca ericifolia: Swamp paperbark.
Dianella revoluta: Black anther flax lily.
Wahlenperbia sp.: Bluebell.
Caesia vittata: Bue brass lily.
Burchardia umbellata Milkmaids.
Dichondra repens: Kidneyweed.
Convolvulus erubescens: Blushing bindweed.
Microtis unifolia: Common onion orchid,
Themidia australis: Kangaroo grass.
Mimulus repens: Creeping monkey flower.
Velleia paradoxa: Spur velleia.
Solanum sodonaeum: Apple of Sodom.
Holcus lanatus: Yorkshire fog grass.
Braza minor: Shivery grass.
Braza Maxima: Shell grass.
Carduus pycnocephalis: Slender thistle.
Solybum marianum: Variegated thistle.
Trifolium sp.: Clover (various).

Bird list
(supplied by Lawrie Conole)

Trip Out:

Magpie, Starling, Silver Gull, Raven sp., White-faced Heron, House Sparrow, Welcome Swallow, Dusky Moorhen, Mudlark, White Ibis, Spur-winged Plover.

Ceres Bridge Area:

Goldfinch, Red Wattle-bird, White-plumed Honeyeater, Blue Wren; Yellow-billed Spoonbill, Little Raven, Pipit, Black-faced Cuckoo-shrike, Tree Sparrow, Eastern Rosella, Black-shouldered Kite, White-necked Heron, Skylark, Red-rumped Parrot, Brown Flycatcher (Jacky Winter), Willie Wagtail, Golden Bronze-cuckoo, Noisy Miner, Straw-necked Ibis, White-naped Honeyeater, House Sparrow, Rufous Whistler, White Ibis. Total: 33 species.

AN HOUR COUNT — No. 29 DARWIN, N. T.

(by Roy Wheeler)

In the early hours of Christmas morning 1974 the cyclone "Tracy", with winds of up to 200 kph, roared in from the Timor Sea to hit Darwin and destroy hundreds of houses and damage many others as well as churches and other buildings, and sank ships in the harbour and left 66 people dead.

Thousands were evacuated in planes south until things became more normal, many returned, many did not. And now, nearly five years later, Darwin has almost reached its pre-Tracy population.

Just 32 years previously Japanese bombers had roared in from across the Timor Sea and laid death and destruction all over Darwin and its harbour — the first and only Australian city to be bombed during World War 2. The air base was completely destroyed and the post office received a direct hit, nine were killed instantly and another died of wounds. This was on February 19, 1942.

Darwin, the capital of the Northern Territory, or as the locals call it "the Top End", is a lovely tropical city of waving palms, green lawns and blue seas. It has a history dating back to 1870 when Surveyor-General George William Goyder started the first settlement — then called Palmerston — and later renamed Darwin after the famous English naturalist Charles Darwin, the author of "Origin of the Species". Here was built in 1872 a cable station which first linked Australia with the rest of the world. The cable from Java reached Darwin on November 20, 1871, and the completion of the overland telegraph line between Adelaide and Darwin on August 22, 1872, and the first message between London and Adelaide was sent on October 22, 1872. A railway line between Darwin and Pine Creek was opened in 1889 and this line was extended to Birdum in 1929. Many thousands of tons of ore was carried on the line in the 1960s but about five years ago the line became uneconomical and closed down. The Stuart Highway — a fine bitumen road from Alice Springs to Darwin — was not built by the Americans but by the Main Roads Departments of three States and covers 1545 kilometres.

Mrs Wheeler and I visited Darwin in October, 1977, and with the help of a couple of Darwin "birdos" made two of our best hour counts. Details as follow:—

FOGG DAM, HUMPTY DOO, N.T., October 25, 1977. On south edge of the dam, which was at a very low level, and the causeway was on our left. Warm with an easterly breeze. 4 p.m. to 5 p.m. Mr Tony Hertog, Roy and Vera Wheeler. Birds in order of sighting: Darter, 4; Pied Goose, 3000; Little Corella, 25; Royal Spoonbill, 22; Large Egret, 6; Plumed Egret, 10; Green Pigmy Goose, 22; Whistling Tree Duck, 10; Fork-tailed Kite, 16; Glossy Ibis, 6; Burdekin Duck, 12; Little Pied Cormorant, 3; Marsh Tern, 18; Black Duck, 25; Little Egret, 4; Lotus-bird, 14; Masked Plover, 22; Magpie Lark, 25; Cattle Egret, 35; Little Whimbrel, 100; Straw-necked Ibis, 33; Little Black Cormorant, 2; Whistling Kite, 10; Brown Goshawk, 1; Pied Heron, 14; Pelican, 8; Australian Pratincole, 2; Sharp-tailed Sandpiper, 1; White Cockatoo, 2; Grey Teal, 2; Little Grebe, 2; Red-necked Stint, 2; Red-collared Lorikeet, 15; Papuan Cuckoo-shrike, 7; Red-tailed Black Cockatoo, 5; Crow, 8; Torres Strait Pigeon, 3; White-faced Heron, 2; Jabiru, 2; White-necked Heron, 2; Rainbow Bird, 8; Brolga, 2. Total: 42 species and 3543 individuals.

DARWIN, N.T. Sanderson Sewage Works, October 28, 1977. Fine and warm, 7.15 to 8.15 a.m. Mr. Hilary Thompson, Roy and Vera Wheeler. Birds in order of sighting: Magpie Lark, 6; Black Duck, 150; White-necked Heron, 2; Pied Heron, 200; Pied Goose, 150; Sharp-tailed Sandpiper, 30; Marsh Tern, 150; Common Sandpiper, 40; Masked Plover, 8; White-headed Stilt, 20; Whistling Tree Duck, 100; Red-winged Kookaburra, 2; Marsh Sandpiper, 30; Yellow Oriole, 2; Black Butcher-bird, 4; White Cockatoo, 1; White Ibis, 4; Plumed Egret, 6; Rufous-banded Honeyeater, 2; Whimbrel, 4; Peaceful Dove, 4; Red-necked Stint, 6; Whistling Kite, 1; Golden-headed Cisticola, 3; Little Egret, 4; White-faced Heron, 2; Pelican, 8; Large Egret, 6; Brolga, 8; Eastern Curlew, 1; Gull-billed Tern, 2; Golden Plover, 1; Little Black Cormorant, 4; Wood Sandpiper, 1; Curlew Sandpiper, 2; Black-tailed Godwit, 4; Glossy Ibis, 2; Crested Hawk, 1; Melville Island Friarbird, 2; Forest Kingfisher, 1. Total: 43 species and 998 individuals.

MEETING NOTES

NEWSLETTER 157, FEBRUARY, 1979

Syllabus item

Three club members operated twin projectors with considerable success. Frances Poole, Gordon McCarthy and Margaret Cameron showed pairs of slides on related subjects. These were of a very high quality and most informative, as they often showed differences between two allied species, e.g. Willie Wagtail and Scissors Grinder, Grey and Rufous Fantail, Scarlet and Flame Robin. Some pairs depicted the general view of a plant and the close-up of its flower, or two aspects of a scene. Mammals were also depicted, e.g. Bush Rat and Water Rat.

Specimens

1. Weeds: (a) Flat weed; (b) Dandelion; (c) Yam Daisy, for comparison.
2. Heath-leaf banksia *(B. ericifolia).* Showy banksia *(B. speciosa).*
3. Tiny sundew *(Drosera pygmaea).* Hundred and thousands trigger plant *(Stylidium graminifolium).*
4. Cat's Ear *(Hypochoeris radicata).* Feather Heads *(Ptilotis macrocephalus).*

Melaleuca sp.
Baeckea astartioides
Sollya heterophylla
E. spathulata?
Bat guano — Byaduc caves.
Blackbird's nest and eggs
Egg of Caspian Tern (Edward Point)
Casemoth larva cases
Little Red Flying-fox found on November 21 at Highton.

Observations

1. Mr Mathison reported a pair of Brolgas with young near Lake Murdeduke. As the young were not yet at the flying stage, it is assumed that they bred in the area.
2. Laurie Conole reported 10 pairs of Painted Honeyeaters at Steiglitz on 21 November. One was seen on 30 November, but none on 3 December, although members taking part in the bird count had camped in the area.
3. Mr Finck reported Rainbow-birds at Anglesea.
4. Mrs Quirk commented on the very high level of Lake Lorne.
5. Miss Cameron reported two Common Sandpipers on a dam along Norton's Road, a considerable way from the coast.
6. Mrs Agar commented on the new Messmate trees growing along the Anglesea Road, near Jarosite, an area previously devastated by Cinnamon Fungus. Mr Pescott explained that this is part of a natural sequence. The spread of phytophthera is dependent on soil conditions and environment. Its growth expands in peak conditions until it kills off its host plants; then native plants can regenerate, as these Messmates have done, until conditions are again favorable to the fungus, and the cycle recommences.
7. It was reported that the female Koala from the OGNR had been killed on the road outside the reserve.

John Russell Wheeler, B.E.M.

We are pleased to record that yet another honor has been bestowed on Mr Jack Wheeler — that of the British Empire Medal awarded in the New Year Honours for his contribution to conservation. Well done, Jack.

EXCURSION REPORTS

Flinders Island 27-29 January. 1979

Twenty-one people made the journey to Flinders Island in three small planes, following the Victorian coast to Wilson's Promontory. There was a great deal of cloud cover on the flight over, but the views on the trip home were magnificent.

Activities on the island included bus trips to Strezlecki Peak (partly climbed by the energetic few), Trousers Point and Killiekrankie, boat trips to Big Green Island and Killiekrankie Islet, and visits by hire car to various parts of the island.

We were fortunate to have Mr John Whinray as our guide, as his knowledge of the natural history of the island is very extensive, and he was able to show and tell us things we would otherwise not have known about.

Sixty-four bird species were recorded including most of the exclusively Tasmanian species known for Flinders Island, such as the Green Rosella, Yellow-throated, Thick-billed and Black-headed Honeyeaters, Dusky Robin and Black Currawong. Hundreds of Cape Barren Geese were seen grazing in the open paddocks. Birds nesting on off-shore islands included Black-faced Cormorants, White-faced Storm-petrels, Mutton-birds and Little Penguins.

Plants were not studied as extensively; interesting ones noted included the streaked Rock Orchid and a Leptospermum species which has a soft purplish seed capsule, which exudes a reddish juice when squeezed.

Wallabies were very plentiful, feeding along the road verges in the evenings, the most common being the Red-necked Wallaby. Several Wombats were seen, and two Echidnas, one of them extremely light in colour.

Mud Islands 27-29 January, 1979

Twenty-five people took part in the Mud Islands campout, including two from Warrnambool. 40 species of birds were recorded and 100 White-faced Storm-petrels banded. The total number of waders was down on previous years. An estimated 20,000 Silver Gulls had nested, spreading around the island. Sub-fossil pelican bones and egg shells were collected. The Red-back Spider was seen for the first time on the island, one being found in a petrel burrow. Mr. Roy Wheeler, who has known the island group for some 40 years, commented on the general decline in some bird species; in his opinion, the prevalence of gulls in such enormous numbers, their aggressive behaviour and constant noise and activity has been largely responsible for the decline.

Mini-bikes at Point Henry

A letter from Mrs Helen Bohling has been received, pointing out the establishment at least in principle of a mini-bike track off Point Henry Road near the salt works. She has told us of the noise problem that is created and that she believes that this will disrupt the bird life in the area.

We have written to the Bellarine Shire Council requesting further information.

Control burning

Where are the controlled fires? How seriously do they alter the environment? Are they always under control? Do they destroy birds, mammals, plants? Who directs where and when to burn? These are some of the questions we are concerned about.

Our club has had the matter raised at the WVFNCA April meeting and now needs information *urgently*. If you can cite where and when controlled burning is happening, and quote any details, we need your help. Please contact Mr Geoff Mathison.

Uncommited land (L.C.C. Corangamite)

The botanist who has carried out extensive surveys for the L.C.C., Mr Cliff Beauglehole, has recently visited our district. He is very keen for the club to make a study of the uncommitted areas in the Corangamite Study Area. It was suggested that the Botany Group should visit these areas and list the plants there.

(Mr Errey and other Botany Group members who have been working on the collection and collating of plants in the Brisbane Ranges, have been able to give considerable assistance in that area to Mr. Beauglehole.)

Brisbane Ranges flora

Former junior member of this club, Mr Neville Scarlett, of Latrobe University, would like assistance from the club on the location of rare and endangered plants in the Brisbane Ranges and the Stieglitz area. It was suggested that the Botany Group might help him.

The particular plants concerned are Pultenaea graveolens, Olearia pannosa, Choristemon humilis, and Stipa breviglumis.

NEWSLETTER 158, MARCH, 1979

Syllabus item

Mr Paul Chaplin spoke on the Baw Baw Plateau, outlining its significance as the most westerly subalpine mass in Australia, the highest area within 150 km of Melbourne, with an annual rainfall of 1900 mm and a runoff of 900 mm. He spoke of its history, from aboriginal times, through its exploration by Von Mueller, to the discovery of gold and the making of tracks and roads. He then showed a movie film, showing Baw Baw in all its seasons, particularly the ski season and all its associated activities, and finished with film of the club excursion in January, 1977.

Specimens

Baw Baw plants:
  Alpine Marsh Marigold *(Caltha entraloba)*, Pretty Grass Flag *(Libertia lupchella)* — grown at Barwon Heads.
Oak leaves — 1977 leaves picked late November, 1978, at Camperdown.
Straw-necked Ibis, beach washed, from Portarlington, one of several apparently drowned, perhaps being lost in fog.
Nests:
  Silvereye, from Highton.
  Yellow Robin, from Steiglitz, 21 Jan.
Green and gold Bell-frog, Portarlington.
Golden Bronze-cuckoo, Portarlington.
Stones from Bridgewater — flint? Covered with limestone.

Observations

1. Mrs Campbell — many Wanderer Butterfly caterpillars in her garden. Mr Mathison said he had seen more Wanderer Butterflies around in the paddocks than usual.

2. Mr Savage told of an unusual Silver Gull observed at Mud Island. It was dark grey all over, a young bird.
3. Mr Wheeler commented on the large numbers of birds at present on the backwater of Lake Connewarre beside the Barwon Heads Rd. These included ducks, waders, marsh tern and 3000 to 4000 teal.
4. Mr Boardman inquired if anyone had seen mistletoe growing on peppermint trees. He also asked if members had recently seen "rust balls" on acacias or wild cherries. These balls are between the size of an egg and a tennis ball, and the "rust" is difficult to remove from the skin. It was suggested that the matter be mentioned in the next newsletter, and that specimens found be given to Mr Boardman.

Bay Ferry Trip

Sunday, 18 February, 1979. Forty-six members and children joined the ferry trip and sailed in perfect weather conditions even though the sky was overcast. Jack Wheeler commented on the history of the annulus and South Channel Fort Island, and on the bird life to be seen there. Of particular interest was the sighting of a young, unbanded Gannet on the annulus where it may have been reared; perhaps this will become the site of a new Gannet rookery.

The Wedge Light Gannetry was a star attraction, and members were able to gain excellent views of the birds: five Fur Seals, one tagged, were lying on the cross beams of the wedge and another structure.

Almost as if pre-arranged, schools of Dolphins came by to complete the scene.

Close-up views — and photographs — obtained of Black-faced and Pied Cormorants, Gulls, Terns and a White-faced Storm-petrel made the trip memorable.

Birds seen: Black-faced Cormorant, Pied Cormorant, Black Cormorant, Short-tailed Shearwater (in the Bay and outside the Heads), Crested Tern, Silver Gull, Pacific Gull, White-fronted Tern (one only), White-faced Heron, House Sparrow, Starling, Gannet, White-faced Storm-petrel (one only).

Next trip to Sorrento should include a visit to Cape Schanck Coastal Park where good walking tracks and beaches are to be found.

You Yangs

Areas near Saddleback Road where Boneseed had been slashed and burnt have now been sprayed with Buctril 20 herbicide to kill the seedling growth. These areas will now be seeded, initially with acacia and later with eucalypt. Lack of finance has prevented this work being extended to other areas, and other eradication projects initiated. There is a need to inject a large amount of finance into the You Yangs, and unless this is done, the entire area will continue to degenerate ahead of boneseed spread and visitor use.

Swan Bay

The G.F.N.C. has been asked by Deakin University to undertake an ornithological study on Swan Bay; we are to meet with members of the Swan Bay Research Unit with a view to establishing initially a one year study with the possibility of extending to a two-year study if enthusiasm continues and results warrant.

Further to this, we will write to the Minister for Conservation asking if the site of the Warine Laboratory has been established, and if not, can we have some input into the decision because of our knowledge of the local ecology.

Sproat's Waterhole

Mr Wheeler has written on our behalf to the Lands Officer about the management of this little reserve near Drysdale; concern is felt that the present usage is detrimental, and that there is need for special care in its conservation.

JUNIOR PAGES — ABOUT FISHES

SWIMMING: There are three main ways that fishes swim: (1) Box-fishes which have rigid bodies move by waving their tail-fin; they cannot swim very quickly; (2) eels wriggle their long, slender bodies; and (3) most fishes use both the waving of their fins and wriggling of their bodies.

SPEED: Tuna are perhaps the fastest, being able to swim at 70 kilometres per hour; Swordfish will reach 54 kmh and the Blue Shark can swim at 36 kmh.

EGGS: Most fishes lay eggs. Sharks produce the ones we call "mermaids' purses". Seahorses carry their eggs in a special brood pouch, and Blackfish lay eggs in a nest of gravel on the bed of a river or pond. The huge Sunfish, which is shaped like a flat disc or "bun" may measure three metres in breadth and weigh 1000 kg; the female will lay up to three million eggs, and the babies which hatch look like tiny toads. Before they reach their full size, their body weight will increase 60 million times.

A fish of a very different size is the Oar-fish or Ribbon-fish — it grows to 6 metres long, but is only 30 centimetres deep and 5 cm thick; it is silver in color with a red crest on its head.

FLOATING: Fish would sink unless they had some means of keeping afloat. Most have a swim bladder which is filled with gas and acts as a float. The fish can fill or empty the float at will. Others, such as sharks, have a lot of oil in their bodies, particularly in their liver, which helps them to keep buoyant.

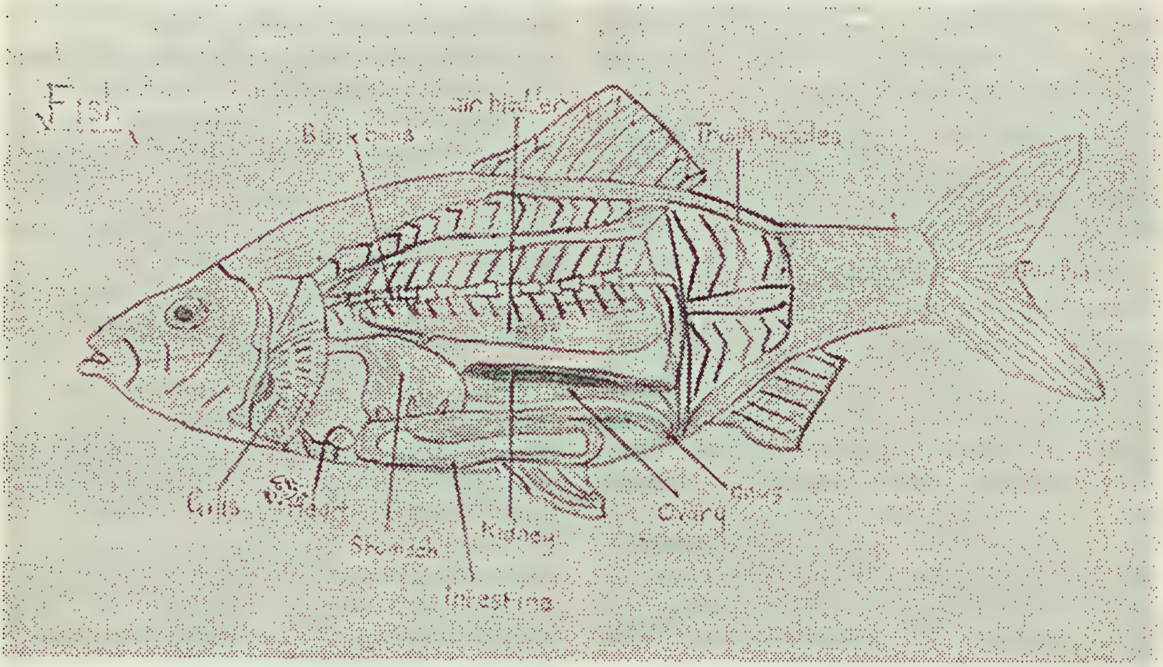
VERTEBRATES: Fishes are vertebrate animals, that is they have backbones; starfish, shellfish, cuttlefish, crayfish and, of course, silverfish are not fishes at all. All belong to other forms of animal life.

What else can you find out about fish?

Chris Coomber used fish as part of a theme for the Junior Poster Competition last December. Here is what Chris has to say about fish, "A fish is beautifully adapted for living in water. It has a bony internal skeleton. The bones move on one another at joints, and are worked by muscles attached to their outer surfaces. The bulk of the muscles are the muscles shaped like a W on its side. They contract on alternate sides of the body from the front to the rear, bending the body in a moving wave that pushes against the water and forces the fish forwards. Fishes use their fins for braking, making sharp turns and varying their depth in the water. But they also possess an air bladder for maintaining their depth. This is a long, hollow sac inside the body cavity just above the gut. Parts of the bladder can release oxygen gas into its interior. This makes the fish buoyant and so it rises in the water. Other parts can remove oxygen gas, when necessary, making the fish less buoyant so that it sinks. The breathing organs (gills) take up oxygen that is dissolved in the water. It is carried around the body in the blood. The gut is a long tube with openings at both ends, and waste materials are removed by the kidneys. A fish has an outer protective covering of scales."

Footnote

The two wildflower posters in the Junior Pages of our last Geelong Naturalist (Vol. 15 No. 4) were drawn by Kirsty Wood (p. 98) and Kathy Eisenach (p. 99).



Ken Jenkin Print

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- 7 DEC 1979
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PERIPATUS — A LIVING FOSSIL

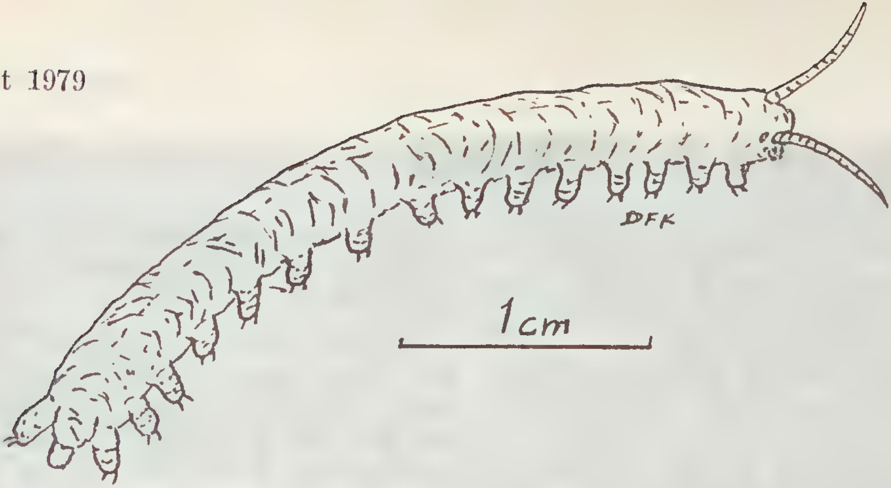
By D. F. King

Having known for some time of the existence of the strange creature known generally as a Peripatus, I was particularly excited when finally I came upon a specimen for the first time in September, 1978. It was discovered under a rock just off the Gentle Annie Track in the Angahook State Forest, and found to be a female *Peripatoides oviparous,* with blue grey coloured skin of soft velvety texture, measuring 32 millimetres body length when extended to its normal active length.

What makes this creature of such interest is the fact that they have existed in virtually the same form for around 500 million years, making them, in colloquial terms, a living fossil. Evidence for this fact is a fossil, found in limestone rock, having the form and structure remarkably close to that of the present-day creatures. This limestone was laid down in the Middle Cambrian, and indicates that the original forms were not terrestial, as they are today, but were marine animals. It is probable that they were the ancestors of many, if not all, of the present-day arthropods, but some made little evolutionary change and thus remained such as we find them today.

Although they require a very damp or moist environment in which to survive, not having developed means of retaining body moisture, they must have many attributes that have enabled them to exist all those millions of years without the necessity to change radically in form after emerging from the marine environment. In all, some 70 species are known, and are almost exclusively confined to the Southern Hemisphere. The only areas in the Northern Hemisphere in which they are found are India-Malaya and Mexico.

Their general appearance is that of a cross between the slug and caterpillar. The integument has the appearance of velvet, and gives rise to the common name Velvet Worm. Legs are arranged in pairs along the body and the number is an important distinguishing feature, apart from size, for all known species. The head is not distinct from the body which can be contracted or extended to a considerable degree. Two antennae are carried on the head and a pair of simple eyes, plus a pair of tubercules known as oral papilla which can squirt a slimy and sticky secretion used in capturing prey. On the underside of the head is the mouth that contains sickle-shaped teeth, arranged in a circular fashion, which are used to cut an opening into its prey and proceeds to suck out the body fluids. It also secretes a digestive saliva much the same as a spider does, to dissolve the tissue of its prey. Prey normally consists of arthropods, although this particular specimen was observed eating decaying vegetable matter.



Peripatoides oviparous

The legs, which in this particular specimen, numbered 15 pairs, are short and stump-like with a pair of claws at the extremity that can be contracted within the leg during the period it travels from one foothold to the next. Movement of the legs when walking is similar to the centipede, where the legs move successively, creating the appearance of a wave-like motion passing along the body.

Reproduction in the Peripatus has several interesting features. Males deposit their sperm on the surface of the female, the exact spot being of no significance, because the deposit induces in ulceration that subsequently allows the sperm to be absorbed into the bloodstream. Eventually, the sperm reaches the ovary and breaks through the wall to complete the fertilisation. Some species bear live young (viviparous), others lay eggs (oviparous) as is the case in the specimen described herein, which has a distinct ovipositor between the last pair of legs. After the young are born or hatched from the egg, growth proceeds via a series of moults at regular intervals until maturity, which is around 18 months.

References:

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HOSPITAL WITH A DIFFERENCE

By Jack Wheeler.

Port Macquarrie is a fast-growing city; as housing expands, so the forest diminishes, the forest which is the home of many koalas, and the big question is — can they be saved from eventual eviction?

Port Macquarrie is determined to save its koalas which roam the city parks and private home gardens within the city areas as well as neighbouring bushland.

The watchdog of Port Macquarrie's koalas is the local Koala Preservation Society which has been functioning for only a relatively few years, but has a strong and active membership.

Three years ago also, the local Apex Club became interested in the preservation of local koalas and decided to do something about reducing the mortality rate, and with its project, won the Sydney Herald Community Service Award for its involvement in providing a koala hospital where sick, injured and orphaned koalas can receive expert attention.

Visiting Port Macquarrie last year on our return from Fraser Island, I took the opportunity to meet members of the Koala Preservation Society and at the same time inspect their well equipped hospital.

I was able to attend the annual meeting of this Koala Preservation Society, and was impressed by the enthusiasm of the group and apart from caring for unfortunate koalas, one of their main activities was the preservation of local habitat, and at the same time organising tree planting for improvement to existing habitats.

One of their big problems however, was the local kangaroo population which damaged trees planted and to protect these trees, outsize netting guards had to be provided with each planting.

Two days later, by wife and I were taken to visit the koala hospital which was situated within the city limits, in a natural area of towering eucalypts, all trees which were food trees for koalas.

The hospital area was well equipped with anti-biotics stored with other medicine supplies in a refrigerator in a small room measuring three metres by two metres, a library, record books where all patients were kept "tab" of, and of course a small writing desk. Nearby, was a detached room with connected water supply over troughs where a daily supply of koala food eucalypts was kept in water. A roster is made out for duty members to gather leaves and also feed twice daily and more often if required, any inmates.

During our visit the only inmate was a male which had suffered a severe dose of conjunctivitus and was totally blind.

Three enclosures adjoining the hospital unit varied in size from 3 x 10 metres to 3 x 5 metres and each was provided with tree limbs adequate for climbing. Attached to the tree limbs were plastic containers in which water was provided to keep the foliage fresh.

The hospital was staffed by two veterinarians and a nursing sister who are on call whenever needed.

The National Parks and Wildlife Service of New South Wales had intimated at the time that they intended to provide suitable larger units of fenced eucalypt habitat where koalas released from the hospital can be rehabilitated gradually when recovering from ailments, so that they can be watched in case further treatment is required which requires for the animals to be rehandled.

This was welcomed by Society members, as previously animals were free released and further checks were well nigh impossible.

During the past financial year of this Society, 55 koalas had been treated and in one case, over eighty cattle tick were removed from a young koala, which would have certainly died if it had not been treated.

One of the most severe ailments is that of conjunctivitis caused by a highly infectious bacterial organism called *chlamidia* which attacks the eyes and if not treated can result in total blindness. This is fairly common amongst the koalas of northern areas of New South Wales and Queensland. However, it is relatively less common here in Victoria. My first case was of a koala out along the Leigh River, northwest of Geelong, found wandering in paddocks for several days and appeared to be in distress for want of food. When captured it was a case of advanced conjunctivitis and the animal almost totally blind.

Following treatment, she was released in one of the koala pens at the Ocean Grove Nature Reserve, but later died of old age and also the severe effects of the disease.

Another male which I named Peter, was young and withstood treatment and following several days' treatment by a veterinary surgeon was successfully released at the Ocean Grove Nature Reserve.

Another ailment which is troublesome at Port Macquarrie is that of 'Wet Bottom', another infection we have little trouble with in Victoria.

The hospital unit provided at Port Macquarrie is situated in an attractive area of bushland, in Cathie Road, only a short distance from the heart of this city, so we must admire the courage of all concerned in their consideration for the Port Macquarrie koala population of today, and as the city expands so must the koala habitat also expand.

UNUSUAL BEHAVIOUR OF AN OWL

(by David King)

Whilst occupied in setting live-catch mammal traps at Point Richards Faunal Reserve, on behalf of the Fisheries and Wildlife Division, at dusk in late April, I had the sensation that I was being watched. It was a calm evening, and no sound was heard, but on looking up after setting a trap I found that I was indeed being closely watched. About three metres above me was an owl hovering perfectly stationary in the same manner as a kite would.

After a few seconds the owl flew in a large circle and returned to the same point above me, and again hovered. This behaviour was again repeated after hovering for a few seconds. Finally it flew to a dead tree some 30 metres away. I attempted to approach the tree but only got within about 15 m. before it flew off and out of sight. It was too dark to obtain a positive identification but size and silhouette indicated that it was probably a Boobook Owl.

MUD ISLAND FROM OUR POINT OF VIEW

By Intermediate Group Members

Many young people congregated at Mud Island this year — outnumbering the adults almost two to one.

We spent a lot of time swimming (and getting sunburnt), finding burrows and young birds, wading lagoons, taking bird counts, meeting redbacks (actually only one), and blindly putting arms down burrows in order to band the fluffy, little chicks.

We spent hours each night extricating birds from the mist nets. We were even energetic enough to walk right round that "huge" island twice and partly many more times. The aerodrome was the most dangerous, especially in the dark, being constantly in danger of falling down burrows. Surprisingly we only caved in one, but don't worry, we carefully dug out the chick and remade his burrow.

Mud Island's a great place if you like sand and sun. We won't forget the hats next time, and perhaps we won't sleep around the campfire on a windy night.

Thanks to Mr. Roy Wheeler to whom we could have listened for hours, to Mr. Gaynor, who introduced us into the bird-banding business and to all those present who made the stay so enjoyable.

This trip gave us the opportunity to get together and talk. That's where the idea of an intermediate group came from — and you can be sure, there'll be all of us and more next year.

NIGHT FLYING WELCOME SWALLOWS

(by Ira Savage)

While doing some routine maintenance check through one of those tall fractionator columns at the Shell refinery, Geelong, with one of my workmates at approximately 2 a.m., he brought to my notice what first appeared to be a bat collecting insects which were flying around one of the many lights on the structures.

On closer inspection I realised it was a Welcome Swallow *(Hirundo neoxena)* on the wing. Its occasional disappearance and reappearance had me more intrigued.

Knowing it was nesting time, I followed up a wild theory which was formulating in my mind — and my guess proved right. After carefully tracking her flight, I found her nest with young.

This was my first observance of a Welcome Swallow working through the night, keeping the appetites of her brood satisfied. We observed the swallow's routine for at least one hour while working around the column.

VEGETATION ON SWAN ISLAND

L. Ramsay

The predominant feature of the natural vegetation on the island is the Shrubby Glasswort *(Arthrocnemum arbusculum)* growing to a height of two metres in thick masses to the edge of the sea, also widespread growing to one metre in height and intermingling with the Arthrocnemum is the Salt-marsh Bush *(Atriplex paludosa)*, on a lower level are extensive areas of Austral Seablite *(Suaeda australis)*.

Beaded Glasswort *(Salicornia quinqueflora)*, Sea Heath *(Frankenia pauciflora)*, Creeping Brookweed *(Samolens repens)*, Australian Salt Grass *(Distichlisophylla)* form a ground cover between the area of thick Arthrocnemum and the golf course. Clumps of Poa to half a metre are also found in this area.

Water Buttons *(Cotula coronopifolia)* are growing around a waterhole on the southern perimeter of the golf course.

Large bushes of Coast Tea-tree *(Leptospermum laevigatum)* also Cypress trees *(Cupresses* sp) are found on the golf course, while surrounding this area are Eucalypts and Virilda Wattle *(Acacia retinodes)*; it is on these trees that the Wire-leaf Mistletoe *(Amyema pressii)* is widespread

The vegetation on the golf course is chiefly introduced.

- Buffalo Grass *(Stenotaphrum)*.
- Annual Meadow Grass *(Poa annua)*.
- Field Madder *(Sherardia avensis)*. ...
- Mouse-ear Chickweed *(Cerastium glomeratum)*.
- Suckling Clover *(Trifolium dubium)*.

Native grasses also found were —

Prickly Arrow-grass *(Triglochin mucronata)*.

Australian Salt-grass *(Distichlis distich*ophylla).

HOUR COUNT No. 30 — Mount Isa, Queensland

By Roy Wheeler

Before white men came to Australia, the country around Mt. Isa in Western Queensland was occupied by the Kalkadoon tribe. They were tall aborigines and well known for their fierce and aggressive character and much fitted with the tough hilly semi-arid land they occupied. When Bourke and Wills journeyed on camels through this area they did not see any aboriginals, the strange animals the camels, kept them at a distance and out of sight.

Later, when the first settlers came with their cattle, they defended the few waterholes with an all-out war which extended through the years until a final fight on a hill-top in 1884 saw the resistance broken. They left behind them rock paintings and their stone quarries, but these are slowly disappearing with the depredations of time and tourist.

Then in February, 1923, a prospector John Campbell Miles, en route from Duchess to Camooweal, examined some specimens of rock near the Leichardt River and mailed them to Cloncurry. Here the Government Assayer noted that the rocks contained from 49 to 79 per cent lead and silver. That was to be the start of M.I.M., the Mount Isa Mines, the largest lead deposit in the world, the second richest silver mine and the 8th largest copper mine. The development was at first slow until the late 1940s. The post-war demands for lead, and later copper, saw the settlement go ahead rapidly. The M.I.M. wages bill in 1976 was $76 million, their royalties was $86 million and their rail bill to the Queensland Government was $23 million. The mine goes to a depth of 3500 feet and has 23 levels.

Mount Isa originally relied on bore water until 1929, when the small Rifle Creek Dam was built, some 40 miles upstream on the Leichardt River. In 1957 this supply was replaced by the construction of Moondarra Dam, a few kilometres from the city and again on the Leichardt River. This beautiful stretch of water of which M.I.M. can be justly proud, caters for all types of water sports, swimming, boating, sailing, skiing, etc.

The bird life around the lake is also very good. Mrs. Wheeler and I visited Mount Isa in October 1977, and the weather was very hot and in the backwaters of Moondarra Dam, the water was receding at 20 feet a day, and here we did an hour count of details of which are below.

Mount Isa, Qld.: Backwaters of Moondarra Dam, October 30th, 1977. Fine and hot. 4.45 to 5.45 p.m. Mr. Peter Harris, Roy and Vera Wheeler. Birds in order of sighting. White-headed Stilt, 15; Pelican, 32; Black Duck, 60; Little Pied Cormorant, 15; Grey Teal, 8; Willie Wagtail, 6; Pipit, 4; Black-fronted Dotterel, 8; Large Egret, 2; White-necked Heron, 2; Coot, 53; White-eyed Duck, 16; Raven, 4; Crested Pigeon, 5; Australian Pratincole, 2; Red-kneed Dotterel, 5; Darter, 4; Sharp-tailed Sandpiper, 16; Marsh Sandpiper, 4; White-breasted Wood-swallow, 6; Whistling Kite, 2; Scissors Grinder, 2; Rufous-throated Honeyeater, 1; White-winged Triller, 4; Magpie Lark, 12; Black Cormorant, 6; Japanese Snipe, 2; Caspian Tern, 1; Grey-crowned Babbler, 4; Little Egret, 2; Royal Spoonbill, 2; Little Grebe 6; White-rumped Miner, 5; Glossy Ibis, 6; Zebra Finch, 1; Greenshank, 2. Total, 36 species and 325 individuals.

P.S., Another large dam, Lake Julius, some 80 kilometres north of Mount Isa, ensures Mount Isa's water supply for many years to come. Information has been obtained from the Council of the City of Mount Isa's publication *Isa Country*, from Helen Horton's book *Around Mount Isa*, and Bill Horton in *The Sunbird* (September 1975, *The Birds of Mount Isa)*.

Newsletter No. 159, April, 1979

SYLLABUS ITEM — March 6, 1979:

Mr. Rob Watkin presented a talk with slides on "Tasmania from the walking track". The photography was outstanding and gave a dramatic picture of the area traversed. Views of the old and new Lake Pedder, Lake Judd, Mt. Ossa and south-west Tasmania generally were included. Plants pictured included Mountain Berry, Snow Richea, *Richea pandani-folia,* Halies, Tasmanian Blandifordia and horizontal scrub. The Tasmanian Echidna with its extra thick fur, Rufous Pademelon, Tiger Cat and Tasmanian Devil were also shown, and birds included a nesting Pied Oystercatcher.

Specimens:

Australian Goshawk	Highton
White-faced Storm-petrel	Winchelsea
Passionvine hopper	
Egg case and caterpillar on spinning gum	Belmont
Ribbed case moth	Belmont
Bluewinged leaf hopper	Belmont
Port Jackson Shark egg case	Black Rock
Crabs	Point Addis
Blackbird's Nest	East Geelong
"Bouncing rocks"	Berrys Beach, Phillip Island
Lizard (skink) eggs	Ocean Grove
Top of sweet corn plant with male and female parts together	
Spear grass	Sheoaks
Axe mark grown over in pine trunk	Sheoaks
Rust gall on Prickly Moses	Sheoaks
Woolly aphis on Prickly Moses	Sheoaks

EXCURSION REPORTS:

Grey River Reserve, Sunday, March 18, 1979. Weather: Fine and mild.

Approximately 40 adults and children met at the Kennett River car park and joined a beach walk in the morning. Numerous starfish and anemones were noticed in the rock pools and a variety of sponges were collected. Seabirds recorded included gannets, cormorants and, well out to sea, Short-tailed Shearwaters. White-naped Honeyeaters were feeding young at the camp-ground. The "artillery rocks" (sedimentary rocks) on the foreshore interested members.

After lunch at the Grey River Reserve, members inspected the bower of the Satin Bowerbird. Drinking straws, bottle tops, lolly paper, even some plastic bits from the edge of the rubbish bags were among the numerous items collected at the bower; but neither sight nor sound of the bird. Excellent viewing of Rufous Fantails, Yellow Robins and King Parrots was obtained.

Intermediate Naturalists' Group.
Barwon River Walk:
Saturday, March 24.

As an introduction to our study of the Urban Barwon River, we took a two-hour walk from Queen's Park Bridge to Princes Bridge.

Only six members turned up, not surprisingly, as it was overcast and spitting rain. Being a relatively uninteresting stretch of river, we were not overenthused with the area although we did note some points of interest.

The river in this area is far from its natural state. Blackberries, thistles, grass, boxthorn and bracken compose much of the ground cover between the sparse eucalypts. We were, however, pleased to note that there are a few Red Gums regenerating along each bank. A grove of boxthorn had been cut down and painted to prevent regrowth.

Severe erosion is apparent in many areas, slumping and rilling being most widespread. Causes appear to be rabbits, motorbikes, flooding and, perhaps greatest, development and uncontrolled drainage.

Deposition of fine sand has taken place near Princes Bridge and the dirt dumped in the area in recent times will almost certainly alter the flooding pattern of the river.

A bird list was compiled by Gavin Baverstock:

Blackbird
Raven
Starling (flock)
Magpie
Sparrows
Silver Gulls
Willie Wagtail
Coots
Dusky Moorhens
Black Duck (two)
Little Pied Cormorants
Pelican
Rainbow Lorikett
Spotted Turtledove
Galah
Spur-winged Plover
Greenfinch
Goldfinches (several flocks)
Superb Blue Wren (females)
White-plumed Honeyeater

I'm sure the exercise did us all good but next time I think we'll pick a more interesting spot and go by boat.

Thanks to all those that took part.

Alison Dedman

Big Desert Campout: March 10-12, 1979

We camped at The Soak — an ideal place for observing birds — as there was no water in the dam at Moonlight Tank.

The weather was very hot, 40 degrees centigrade, and nights were mild with brilliant moonlight; the most annoying thing about the area were flies — there were millions of them.

Plant species numbered 53, but not many were flowering, although banksias and correa were flowering.

Bird observations were made from the Broken Bucket Tank Reserve up to the soak, approximately 35 miles. The species numbered 37, most seen around the soak; the most plentiful were the Spiny-cheeked Honeyeaters and other species of interest were Spotted Nightjar, Black Falcon, White-fronted Honeyeater, Yellow-plumed Honeyeater, Purple-gaped Honeyeater, Striated Grass-wren, Grey-crowned Babbler, Yellow-tailed Pardalote and Purple-backed Wren.

Footprints of Kangaroos were seen around the waterholes, and tracks found under the tea-tree thickets around the large dune near the camp, resembled those of the Hopping Mouse. One House Mouse was seen. Several scorpions were found around the camp. Two species of reptile were recorded (Painted and Spinifex Dragons).

Newsletter No. 160, May, 1979

SYLLABUS ITEM — April 3, 1979:

Mr. Charles Anderson, from the Fisheries and Wildlife Division spoke with the aid of slides, some from members, of the *Orange-bellied Parrot Survey* and of the various closely related *Neophema species*. There are probably only 100 parrots visiting the Victorian coastline. An atlas-type survey of the salt-marsh areas along the whole coastline is envisaged for 1979. Mr. Anderson brought skins of Neophema parrots, so that members could see the differences between the species at first hand.

Specimens:

Banksia integrifolia
Correa reflexa with Orchard Spider and egg sacs.
Banksia haxteri
Neophema parrots:
  Male and female of Rock Parrot *N. petrophila*
  Elegant Parrot. *N. elegans*
  Orange-bellied Parrot *N. chrysogaster*
  Blue-winged Parrot. *N. chrysostomus*
Seed capsule and seedlings of *E. youngiana* (Large-fruited) Mallee.
Auricaria cone

Rushes:

Cladium junceum — Bare twig-rush
Juncus planifolium — Broad-leaf Rush
Leptocarpus rhizomatous—Twine Rush
Immature tiger snake (from Riverglen Caravan Park)
Sparrow's nest
Caterpillars of Gum Emperor type moth (N.B.: camouflage — green with white stripe).

EXCURSION REPORT — RED ROCK, April 15, 1979:

On a warmer than average autumn day, nine adults and two children made the excursion to Red Rock and Lake Corangamite on Easter Sunday. A short stop was made at the Colac Gardens and Lake. The green algae that has caused stock deaths recently was quite evident.

At Red Rock Lake Purdigulluc and the neighbouring small lake also appeared to be heavily contaminated. From the Memorial Observation Point, marked water movement was noticed in the small lake below although the day was calm. It was thought that temperature changes in the shallow water could be the cause. An unpleasant odour also wafted up, presumably from the same water.

Large numbers of Hoary-headed Grebes were on Lake Coragulac and the water was so clear and calm that the birds could be seen swimming underneath.

Countless empty *Coxiella striata* shells covered the Lake Corangamite shoreline at Wool Wool. Swans, musk duck, pelicans and coots were seen on the Lake.

The return trip through Dreeite and North Cundare provided an excellent view of a boldly marked Tiger Snake and Eastern Swamphen, Brown Goshawk and Red Wattlebird were added to the bird list. The top end of Lough Calvert had a high population of Black Swans and we also observed Red-capped Dotterels, Red-necked Stints and Black-winged Stilts.

A very brief stop at Lake Murdeduke added Little Black and Little Pied Cormorants, 28 Cattle Egrets (3 standing with a few sheep) and small flocks of unidentified waders.

Total bird species for the day: 42.

●

In the vicinity of Lake Corangamite two shrubs were common. These were Tree Violet *(Hymenanthera dentata)* and Sweet Bursaria *(Bursaria spinosa)*. An acacia in conspicuous blossom would appear to be Lightwood, though this species is not listed for the area. A further check will be made. On the shore at Wool Wool, three typical salt marsh plants were growing. These were Seablite *(Sueda australis)*, Berry Saltbush *(Atriplex semibaccata)* and Beaded Glasswort *(Salicornia quinqueflora)*. A prostrata succulent, covering several square metres, was not identified. Variable Willow-herb *(Ejilobium cinereum)* and Austral Stork's-bill *(Geranium solanderi)* were also seen, and there were several patches of Small-leaf Clematis *(Clematis microphylla)*. As could be expected, a number of introduced species, mainly of the composite family, thistles, flatweed, oxtongue, etc.) were widespread. More unusual was a specimen apparently of Sea Wheat-grass *(Agropyron junceum)* close to the water's edge.

Newsletter No. 161, June, 1979

SYLLABUS ITEM: May 1, 1979:

Mr. Bryan Wardle brought some of his collection of old natural history books. He gave the background to the authors of many of them. These ranged from clergymen - naturalists of the 19th century, to "giants", such as Darwin, T. H. Huxley, Ferdinand von Mueller. Others of interest included an early edition of "Honeyflora of Victoria", "Know your own Trees", by Patton (1944). He finished by showing his own published books, and botanical field-books made when he was in the army.

Specimens:

Wooly bear caterpillar
Scarab beetle   Lichen   Earth star
Galls on ironbark
Cup moth pupa case on grass tree leaf
Moths and eggs on grass-tree leaf
Grevillea sp.
Egg cases or galls from Mt. Cole
Warbler's nest made of paperbark found
  in mangroves, in fact, a double nest,
  one on top of the other.
  Mangrove warbler? (Groote Eylandt)

EXCURSION REPORTS:

Henderson Falls — May 20, 1979:

Misty, overcast conditions that prevailed at the Geelong Post Office at 9 a.m. improved as our convoy travelled along Princes Highway, where a number of vehicles joined in before we turned south at Winchelsea. The first stop was 11 a.m. beyond Deans Marsh to inspect the vegetation of a shallow watercourse south of the old road. King Ferns with massive butts over a metre high, tall paperbarks (Moonah) with spongy bark 2 cm thick and the mountain form of Varnish Wattle with its very large leaves attracted most attention. Both Rough and Soft Tree-ferns grew there, and Hard Water-fern covered a considerable area. Pouched Coral-fern and Batswing Fern were also seen.

At Benwerrin we left the bitumen and drove along Mt. Sabine Road to Erskine Falls Road. This took us to the outskirts of Lorne, from where we proceeded through Allenvale to the Kalimna Picnic Ground for lunch. There we were joined by Lorne naturalists, Mr. and Mrs. Bert Alsop and Mrs. P. Smith.

The walk to Henderson and Won Wondah Falls was enjoyed in bright sunshine. Fifteen more fern species were seen, making 21 for the day. Most interesting was Strap Water-fern, a very rare plant in western Victoria.

Fungi of various types were common and very colourful. Jelly, Coral and Flame Fungi were found, as well as a wide variety of gilled forms.

Twenty-four bird species were listed in the area. These included Crescent Honeyeater, Eastern Spinebill, Golden Whistler and White-browed Scrub-wren.

Seventeen vehicles took part in this excursion.

INTERMEDIATE GROUP REPORT:

Lake Connewarre — Sunday, April 29:
Weather: Overcast.
Members: Nine present.

With a boat, a canoe and a kayak, the group was made mobile in the Lake Connewarre area. Naturally, the area is noticeably different from fresh water areas of the Barwon.

Water weed and pigface were abundant as were tiny water snails. The lake is surrounded by pasture and in some areas, slumping appears to be a problem. Rabbits have aggravated erosion of the S.E. face. Numerous cartridges found indicating shooting.

Bird List:

Magpie
Swans
Mudlark
Black Duck
Pelicans
Sparrow
Goldfinch
Starling
Australian Coot
Little Pied Cormorant
Swamp Harrier
Welcome Swallow
Silver Gull
White-faced Heron
Little Grebe

Buckley's Falls to Ceres — May 27

The five most active members of the group spent almost five hours walking along the river between Buckley's Falls and Ceres Bridge in weather alternating between showers and overcast.

The Buckley's Falls area was interesting being much changed by man. Beyond, we fought through boxthorn and stinging nettles and then into sticky mud along steep banks. "Heavy" feet made walking hard going but conditions improved as we progressed.

The weather did not make sightseeing spectacular, but Grant and Paul (our bird experts) compiled this list:

Welcome Swallow
Little Pied Cormorant
Straw-necked Ibis
Spur-winged Plover
Nankeen Kestrel
Brown Falcon
Dotterel (probably black-fronted)
Sparrow
Magpie
Moorhen
Raven
Little Grebe
Mudlark
Greenfinch
Starling
Flame Robin
Blue Wren
Black Duck
White Ibis
Eastern Rosella
Willie Wagtail
Pipit

Newsletter No. 162, July, 1979

SYLLABUS ITEM: Members' Night, June 1979.

Miss Margaret Cameron spoke of the *Australian Bird Atlas Scheme.* This scheme aims to map precisely the past and present distribution, breeding and non-breeding, of all the bird species in Australia. It is important for conservation of bird species to have information as to where the birds are at the present time. Overlay maps are being produced for matching bird distribution, vegetation, climate, topography etc. Four main periods are being studied: pre-1900, 1901-1950, 1951-1976, and 1977 onwards. These were chosen because 1900 marks the beginning of systematic study of ornithology in Australia; 1950 was the beginning of major land clearing after the war, therefore leading to changes in bird distribution, and 1977 was the beginning of field recording specifically for the Atlas Scheme. Data for historical maps is obtained by reading of early explorers and settlers' journals and reminiscences, from later notebooks etc. 1800 people are now taking part. In 1978 camping trips began to out of the way places, and it was on one of these trips that the night parrot was found. The 1° Geelong square shows the most breeding species (305), and the Cairns square has the most birds recorded to date, with 343 species. Miss Cameron illustrated her talk with overhead projector transparencies of maps and with slides. The Club Bird Atlas Group has excursions on the first Sunday of the month.

Mr. Pescott gave an illustrated talk on the *Inverleigh Common.* This comprises 1050 hectares of public land (2600 acres). 1655 acres are reserved forest, 1525 acres are Crown Land and 130 acres have been used for gravel extraction, and the Final Recommendations of the LCC give 150 acres over to a golf course. Part of the area was first set aside in 1866, as a timber reserve. In 1872 a reserve was created for firewood, and the land eventually became known as the Inverleigh and Teesdale United Farmers Common. The Common is interesting geologically. The bedrock is of Ordovician shale. Middle Tertiary limestones and marls outcrop at the Leigh River and Native Hut Creek. There are Upper Tertiary Pliocene sands 170 feet thick, of non-marine origin, newer basalt flows north to south along Native Hut Creek, and thin recent sands form the capping on the wooded area on the plateau. 141 native bird species have been recorded, and 8 introduced species. Wildflowers form an impressive display in spring. 24 orchid and 13 lily species have been recorded. Mammals include Koalas and wallabies. Aboriginal camp sites have also been found. Slides shown included orchids, such as the Parson's Bands, Golden Moths and Tiger Orchid, spider and sun orchids; Kangaroo and Shell Grasses, Manna and Red Gum and Golden Wattle, and various mammals.

Specimens at June Meeting:

Stubble Quail Pollocksford
Shaggy caps Queenscliff
Wanderer butterfly, female Norlane
White-spot Skipper
Common Brown, male
Bombycoidea *(Entomata specialies?)*
Portarlington

Little White *(Pieris rapae)*
Caper White *(Anaphasis java teutonia)* migrating to the S.W.
You Yangs and Portarlington

Banksia ericifolia
Acacia podalyrifolia

Fossils:

Shark's teeth Batesford quarry floor
Shark's teeth *(Odontaspis contortodens)*
Tooth from shark 60' long *(Carcharadon megalodon)* Batesford?
From Geeelong museum collection

Whale's teeth *(Ziphius Geelongensis)* Waurn Ponds (Old limestone quarries). From Geelong museum collection.

Bones of Dugong: skull, vertebra, ribs, tusk. Groote Eylandt

Feathertail glider. Wensleydale

Ringtail possum Queenscliff Road

Bushy Yate *(E. lehmanii)*

Freshwater crab Barwon R., above Buckley's Falls.

Pellet (fur and parrot feathers) from Barking or Boobook Owl.
Enfield Forest

Orange-bellied Parrot Survey:

About a dozen G.F.N.C. members had covered all salt marsh areas on the Bellarine Peninsula as part of the saturation survey on June 3. 33 birds were seen in one group at Point Wilson, but only 48 birds in all were seen. 134 people had been in the field throughout Victoria, west to Adelaide and in parts of Tasmania and offshore islands. Another census will be held in August.

REPORT: Inverleigh Common Excursion — June 10, 1979.

Forty-six members visited the Common in threatening westerly weather. The north-east corner near the watercourse and dam was visited before the trail bikes arrived. In true T.V. style Peter Eastgate tapped a chain sawn hollow and an Owlet Nightjar was on display. Six Black-tailed Wallabies were seen and many used finch, silvereye and White-plumed Honeyeater nests were found in the hedge wattle by the creek.

The afternoon venue was the western portion and we gathered south of the swamp. The walk was west to the boundary, north past the banksia stand and return around or through the dry swamp.

Forty - seven bird species were recorded, White-plumed Honey-eaters dominated but no thornbills were seen. Leila Ramsay handled the plants at the specimen table and Dave King the rest.

Comments and observations:

This wonderful, natural common, so rare in the Geelong area is being abused and neglected to an alarming extent. Evidence of surface mining (sand and gravel) have changed large areas in the western, south-western and southern areas for the worse. Inverleigh rubbish dump is beside the main watercourse and beauty spot. One cannot escape the growling of trail bikes anywhere on the common. Chainsaws drown them out at times as they cut Red Gums, Manna Gums and hollowed dead trees for fence posts and firewood.

Four different authorities control the Common — two State Government Departments and two councils. As 150 acres were recently sliced off for a golf club and the remainder being shot up and cut up by man's latest devices, shouldn't we move to have it preserved as a National Park?

SPUR-WINGED PLOVERS AT SWAN ISLAND

(by Jane Abbott)

On 15 October, 1978, a nest of the Spur-winged Plovers was seen on Swan Island, on a mown section of grass to the side of the practice fairway. The nest was a shallow depression in the ground, and contained three eggs.

There were plovers in the vicinity, but none seemed agitated when the nest was approached. They were very agitated when observers were about 50 metres away from the nest.

On 1 November, the nest was again approached. There were two chicks, no sign of their egg shells. The third egg had a small hole in it, and the chick could be seen working at the shell to enable it to emerge. Once again the plovers were only agitated when I was some distance away, but were then very aggressive, diving down at me with alarming speed, and persisting until I was nearly back to the parking area.

On 25 October, in a nearby area, two young Spur-winged Plover were seen. They were about 125 mm high, appearing fluffy and predominantly black and white. They hid in some tall clover. At the same time, a much smaller one was seen with brown feathering, which flattened itself to the ground on some bare earth, at the margin of a grassy area. It was well camouflaged, keeping perfectly still. It appeared a similar size and colour to the newly emerged chicks seen on 1 November.

JUNIOR PAGES

SOME BIRDS OF STEIGLITZ

After a number of trips to Steiglitz I have seen 34 species. Naturally there are many more. My brother has seen 77 species in nine months.

Here is my list:

PASSERINES

White-naped Honeyeater, Yellow-winged Honeyeater, Hooded Robin, Scarlet Robin, Striated Thornbill, Yellow Robin, Brown Flycatcher, White-backed Magpie, Welcome Swallow, Fairy Martin, White-browed Scrub-wren, White-throated Treecreeper, Goldfinch, Mudlark, Grey Shrike-thrush, Red Wattlebird, Australian Raven, Blackbird, White-plumed Honeyeater, Starling, Eastern Spinebill, Flame Robin, House Sparrow, Grey Fantail, White-winged Chough, Restless Flycatcher, Willie Wagtail.

NON-PASSARINES

Crimson Rosella, Eastern Rosella, Spur-winged Plover, White-faced Heron, Kookaburra, Horsfield Bronze-cuckoo, Brown Quail.

Here are some that I know best:

Welcome Swallow: The reason for so many is that there are a lot of insects attracted to the river that they feed on. They nest under the bridge. They build a small cup-shaped mud nest.

Goldfinch: As there is much farmland around Steiglitz there are lots of thistles, and on these thistles the Goldfinch feeds. The Goldfinch is introduced.

Grey Shrike Thrush: This bird is actually not a shrike or a thrush, it belongs to a family called whistlers and shrike-tits. This family is called the thickheads. Its beautiful song can always be heard at Steiglitz.

Australian Raven: This is the only raven found in Steiglitz, the range of the Little Raven doesn't seem to include Steiglitz but peters out in nearby areas. Its loud monotonous call often wakes you up in the morning.

Eastern Spinebill: The spinebill is a member of the large honeyeater family, but it is different to most because of its long down-curved bill. This allows the spinebill to drink from long narrow flowers such as the common correa, which other honeyeaters can't do.

Yellow-winged Honeyeater: A very common honeyeater, the Yellow-winged Honeyeater is coloured a mixture of yellow, black and white and has a white eye unlike other honeyeaters.

Scarlet Robin: The Scarlet Robin is probably Steiglitz's biggest "stickybeak" and will always come to watch if you make enough noise when walking about. It is also probably the most beautiful bird at Steiglitz with its bright scarlet breast, black back and cap and white forhead patch.

White-backed Magpie: Although very common, the magpie is very interesting to watch. A family lives at Steiglitz, and can often be seen feeding on the ground beside the creek or track. The young ones often get separated from their parents and carry on with crying noises like a lost child in a supermarket.

White-throated Treecreeper: A White-throated Treecreeper can often be seen "walking" up a tree taking insects from under the bark.

Red Wattlebird: The Red Wattlebird, the second biggest honeyeater in Australia — about 32 to 35 cm long — is as common as in Geelong gardens. It can often be heard "coughing" in trees near the creek.

Blackbird: Another introduced bird the Blackbird is not very common in Steiglitz. When seen it is always near the houses.

Starling: Undoubtedly the most unpopular introduced bird found in Steiglitz. Even here they rob our native birds of nesting hollows. They also nest in the few buildings left in Steiglitz. Hundreds, even thousands, may be seen when driving in the country these days.

Grey Fantail: The Grey Fantail is a fairly common bird in Steiglitz. It makes a display with its fan-shaped tail. It is a noisy bird and eats little insects. It is seen in the quite open bush and is also very tame and inquisitive.

White-winged Chough: The White-winged Chough is not a common bird in Steiglitz. They live in families of up to seven, and they build a mud nest up in trees. They feed on the ground and often compete with magpies for food.

Restless Flycatcher: It is a well-known bird in Steiglitz and is often called the Scissors Grinder. It has a rather interesting grinding metallic song. They are also very interesting to watch.

Willie Wagtail: They are also a very pretty bird and also very friendly. This black and white fantail has a whistling call described as "sweet pretty creature" by Peter Slater in his book. It is also very inquisitive.

Crimson Rosella: Quite a common bird in Steiglitz with a beautiful crimson chest. It makes funny noises in a tree. They feed on blossoms and fruit off eucalyptus trees.

Eastern Rosella: Is uncommon and not often seen at Steiglitz. Its habits are like the Crimson Rosella and feed on mainly the same food. They are also very pretty birds.

White-faced Heron: A quite small member of the wading birds and feed on yabbies and lots of other river life.

Kookaburra: The largest of the kingfisher family. It has a very powerful, interesting song very unlike the rest of the family. They feed on small lizards and snakes. They kill the snakes with their beak and bash them on the ground. They have a very powerful neck to do this.

Next time I go to Steiglitz I hope to add to my bird list.

Completed 4/11/78.

Geelong Field Naturalists' Club

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(Phone 593023)

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Mr. Geoff Mathison, "Bona Vista", Winchelsea.
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Vice-presidents:
Mr. Gordon McCarthy, 26 Fairbrae Avenue, Belmont.
(Phone 43 1826)
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(Phone 43 4368)

Honorary Secretary:
Mrs. Valda Dedman, 69 North Valley Road, Highton.
(Phone 43 2374)

Assistant Hon. Secretary:
Mr. Gordon McCarthy, 26 Fairbrae Avenue, Belmont.
(Phone 43 1826)

Honorary Treasurer:
Mr. John Ealey, 3/20 Peary Street, Belmont.
(Phone 43 4381)

Assistant Hon. Treasurer:
Mrs. Betty Quirk, Lot 2, Crimea Street, Drysdale.
(Phone 51 2996)

Honorary Editor:
Mr. Trevor Pescott, 4 Victoria Terrace, Belmont.
(Phone 43 4368)

Excursion Secretary:
Mr. Jack Wheeler, 72 James Street, Belmont.
(Phone 43 1200)

Honorary Librarian:
Miss Leila Ramsay, 8/76 Barrabool Road, Highton.
(Phone 43 3661)

Committee:
Mr. E. G. (Ted) Errey, 3 Leonard Street, Belmont.
(Phone 43 2848)
Mr. Rolf Baldwin, 2 Kyle Avenue, Belmont.
(Phone 43 3763)
Mr. Geoff Gayner, Lot 80, Jenkins Drive, Lara.
(Phone 82 2182)
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(Phone 55 2303)
Mr. Norm Povey, 4 Short Street, Belmont.
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Mr. Ivan Tilbury, 27 Elliott Avenue, Highton.
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Auditor:
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BRISBANE RANGES CAMPOUT

11 to 13 August, 1978

VENUE: Corio Inspectorate School Camp, Staughton Vale.

By Leila Ramsay

In spite of the wet and cold weather, 13 adults, plus 10 students were camping and there were eight day trippers and all agreed that they enjoyed the weekend.

On the Saturday morning we even had some sunshine for our walk up the hill to the west of the camp site. The Small-leafed Clematis *(Clematic microphylla)* and Golden Wattle *(Acacia pycnantha)* were in flower and made a bright splash of colour in the bush.

Numerous birds were seen and heard, in fact, some members found so much of interest in this area and along the valley that they spent a greater part of the weekend in this locality. It was here that three Koalas and three Grey Kangaroos were seen.

On Saturday afternoon in the vicinity of Track 21, off Upper Anakie Road, we had a rewarding time finding numerous orchids — having Norma and Stan Finck, who are most knowledgeable about these plants, with us, made the afternoon even more interesting. List of orchids identified in this area:—

Thelymitra antennifera
Rabbit Ears. In bud.
Diuris maculata
Leopard Orchid. In bud.
Acianthus reniformis
Mosquito Orchid. Flower.
Acianthus exertus
Gnat Orchid. Flower.
Caladenia menziesii
Hare Orchid. In bud.
Glossodia major
Wax Lip Orchid. In bud.
Corybas diemenicus
Slaty Helmet Orchid. Flower.
C. dilatatus
Veined Helmet Orchid. Flower.
Pterostylis parviflora
Tiny Greenhood. Flowers finished.
Pt. alata
Striped Greenhood. Flower.
Pt. toveyana
Mentone Greenhood. Flower.
Pt. concinna
Trim Greenhood. Flower.
Pt. pendunculata
Maroon Greenhood. Flower.
Pt. nana
Dwarf Greenhood. Flower.
Pt. nutans
Nodding Greenhood. Flower.
Pt. curta
Blunt Greenhood. Flower.
Pt. longifolia
Tall Greenhood. Flower.

On Sunday, while travelling along the Vallan Road to the North Brisbane Range region, two Black wallabies were seen. During the day we found several species of wattle and quite a number of plants in flower in this area.

The bird observers had quite an interesting day also, and were particularly happy to see a group of six Varied Sittellas.

Werribee Gorge Excursion
15 July, 1979

By Valda Dedman

Clear blue skies tempted a large number of members in 28 cars to take part in the excursion to Werribee Gorge the largest excursion for some time. At Bacchus Marsh we were joined by the Ranger of the Werribee State Park, Mr. Jack Myers, who went to a great deal of trouble to make our excursion enjoyable and instructive.

He was helped in his commentary by Mr. Stan Rowe, our geology expert, who also prepared geological notes covering both the journey to Bacchus Marsh and the Gorge area.

In the morning we went to Falcon's Lookout, and although we did not see any Peregrine Falcons, we learned a great deal about the very varied geology of the Gorge, and were able to see at close hand examples of Ordovician sandstones and overlying Permian glacial tillite. In places the junction between the two was spectacular. Various interesting examples of folding were observed in the sandstone, and grooving and polishing from the movement of ice across rock surfaces. We obtained some fine views along the Gorge and over the surrounding countryside to the north and east.

It became very windy and we were glad to go round to the opposite side and down into the Gorge itself, where lunch was taken beside the Werribee River.

In the afternoon we walked along the track beside the river. We saw more striking examples of folding and faulting and an interesting dyke of quartz porphry. At the junction between the Ordivician and Permian rocks, many caves have been hollowed out, and it is in one such area that the Peregrine Falcon nests. The falcons were not about, but we were shown their nesting sites and the "mating tree", and treated to an amusing account of their performance thereon.

It was not a good day for birds, the total number of species observed being only about 20. We had some excellent views of Wedge-tailed Eagles soaring, and "little" birds seen included Scarlet Robin, White-naped and Yellow-faced Honeyeaters and a female Mistletoe-bird.

Plant species recorded totalled 52, including five wattles: Golden Black, Blackwood, Lightwood, Varnish and Gold-dust. A few Golden Wattles were in flower, giving promise of a fine display later on all over the hillsides. An unexpected find was the Fragrant Saltbush, indigenous to the area. Tree violets and Sweet Bursaria were common. Ferns were represented by Rock Fern, Necklace Fern and Soft Water-fern. Many people were intrigued by the introduced *Solanum pseudo-capsicum*, with its bright orange berries. Isolated White Cypress Pines stood out on the escarpment. Eucalypts ranged from Red Ironbark, Red Stringybark and Long-leaf Box to the smooth-barked Manna Gum and Yellow Gum.

Just before we left, a Water Rat was seen among the reeds at the water's edge, bringing to a fitting close a very full day.

WERRIBEE GORGE EXCURSION PLANT LIST

15 July, 1979

DENNSTAEDIACEAE:
Pteridium esculentum
Austral Bracken

ADIANTACEAE:
Cheilanthes tenuifolia
Rock fern

ASPLENIACEAE:
Asplenium flabellifolium
Necklace fern

BLECHNACEAE:
Blechnum minus
Soft water fern

CUPRESSACEAE:
Callitris columellaris
White Cypress Pine

TYPHACEAE:
Typha angustifolia
Bulrush

GRAMINEAE:
Phragmites communis
Common Reed

CYPERACEAE:
Lepidosperma laterale
Variable Sword-sedge

JUNCACEAE:
Juncus australis
Austral Rush

LILIACEAE:
Lomandra longifolia
Spiny-headed Mat-rush
Dianella revoluta
Black-anther Flax-lily

CASUARINACEAE:
Casuarina stricta
Drooping She-oak

SANTALACEAE:
Exocarpos cupressiformis
Cherry Ballart

LORANTHACEAE:
Amyema pendulum
Drooping Mistletoe

POLYGONACEAE:
Polygonum strigosum
Spotted Knotweed

CHENOPODIACEAE:
Rhagodia parabolica
Fragrant Salt-bush

CARYOPHYLLACEAE:
Stellaria pungens
Prickly Starwort

RANUNCULACEAE:
Clematic microphylla
Small leaf Clematis

LAURACEAE:
Cassytha melantha
Coarse Dodder-laurel

CRUCIFERAE:
Lepidum hyssopifolium
Common Pepper-cress

PITTOSPORACEAE:
Bursaria spinosa
Sweet Bursaria

MIMOSACEAE:
Acacia acinacea
Gold-dust Wattle
Acacia pycnantha
Golden Wattle
Acacia verniciflua
Varnish Wattle
Acacia melanoxylon
Blackwood
Acacia implexa
Lightwood
Acacia mearnsii
Black Wattle

PAPILLIONACEAE (FABACEAE):
Pultenaea daphnoides
Large-leaf Bush-pea

GERANIACEAE:
Pelargonium rodneyanum
Magenta Stork's-bill
Geranium solanderi
Austral Crane's-bill

VIOLACEAE:
Hymenanthera dentata
Tree Violet

MYRTACEAE:
Euc. viminalis
Manna gum
Euc. macrorhyncha
Red Stringybark
Euc. dives
Broad-leaf Peppermint
Euc. goniocalyx
Long-leaf Box
Euc. leucoxylon
Euc. sideroxylon
Leptospermum lanigerum
Woolly Tea-tree
Callistemon paludosus
River Bottle-brush

ONAGRACEAE:
Epilobium cinereum
Variable Willow-herb

UMBELLIFERAE:
Hydrocotyle laxiflora
Stinking Pennywort
**Conium maculatum*
Hemlock

CONVOLVULACEAE:
Dichondra repens
Kidney Weed

SOLANACEAE:
Solanum laciniatum
Kangaroo Apple
**Solanum pseudocapsicum*
Madeira Winter-cherry
(Jerusalem Cherry).

SCROPHULARIACEAE:
Gratiola peruviana
Austral Brooklime

LABIATAE:
Prostanthera nivea
Snowy Mint-bush

PLANTAGINACEAE:
Plantago varia
Variable Plantain

GOODENIACEAE:
Goodenia ovata
Hop Goodenia

COMPOSITAE (ASTEREAE):
Cassinia obcordatum
Grey Everlasting
Senecio lautus
Variable Groundsel
Senecio odoratus
Scented Groundsel
Senecio quadridentatus
Cotton Fireweed

VALE JIM BAINES

Mr. James A. Baines, of Torquay, member of the G.F.N.C., and a regular contributor to Geelong Naturalist, died early last month. He was an acknowledged expert on the scientific names of plants, and having recently published the first volume, was working on a second.

WERRIBEE GORGE EXCURSION

15th JULY, 1979

Windy, but fine. 23 species of birds recorded.

MORNING — FALCON'S LOOKOUT

Striated Pardalote: Several heard calling
Wedge-tailed Eagle: At least one pair—seen several times.
Brown Falcon: At least one pair — seen several times.
Sulphur-crested Cockatoo: Large flock.
Brown Thornbill: Small parties, mainly in the undergrowth.
Scarlet Robin: Two pairs seen.
Superb Fairy-wren: Numerous morning and afternoon.
Red-browed Firetail: One party present.
White-naped Honeyeater: Small parties in the trees.
White-throated Treecreeper: Odd birds seen and heard.
White-eared Honeyeater: One seen.
Yellow-rumped Thornbill: Small party.
Raven sp.: Common throughout the area.
Australian Magpie: Common in the district.
Pacific Heron: One seen.
White-faced Heron: One seen.

BOTTOM OF GORGE:

Golden Whistler: One female seen.
Yellow-faced Honeyeater: Several feeding and calling.
New Holland Honeyeater: Odd birds noted.
White-browed Scrub-wren: Along river.
Yellow Robin: Heard calling along river.
Grey Fantail: Odd individuals seen.
White-winged Chough: One party in forest above gorge.
Birds, except thornbills and fairy-wrens, generally scarce.

TWO DAYS IN THE GRAMPIANS

By Peter Tremul and Chris. Chester

17 to 18 January, 1979.

One does not have to look far to gather a good bird list in the Grampians. As on our arrival we were greeted by rosellas, swallows, 'creepers, robins and wrens. After surveying as much of the Grampians as possible, we observed a total of 56 bird species.

Many of the larger mammals were seen at night, and a Spiny Anteater was noticed crossing the track during the day.

Reptiles were plentiful if one was prepared to look. A total of six species were collected, which included four skinks, one dragon and one snake.

BIRD LIST:

Crimson Rosella
Dusky Wood-swallow
Brown Treecreeper
Hooded Robin
Yellow Robin
Eastern Spinebill
Grey Fantail
Superb Fairy-wren
Willie Wagtail
Australian Magpie
Masked Lapwing
White-faced Heron
Black Swan
Kookaburra
Straw-necked Ibis
Yellow-tailed Black-cockatoo
Sulphur-crested Cockatoo
Striated Thornbill

Little Wattlebird
Sacred Kingfisher
New Holland Honeyeater
Magpie Lark
Red-rumped Parrot
White-rumped Miner
Long-billed Corella
Red Wattlebird
Gang-gang Cockatoo
Musk Duck
Grey Teal
Eurasian Coot
Little Black Cormorant
Great Cormorant
White-eared Honeyeater
White-plumed Honeyeater
Red-browed Firetail
Crested Shrike-tit
Southern Boobook
Australian Raven
Brown Thornbill
Grey Shrike-thrush
Common Bronzewing
Rufous Whistler
Brush Bronzewing
Jacky Winter
Black-fronted Plover
Fairy Martin
Little Raven
Black-faced Cuckoo-shrike
Wedge-tailed Eagle
Black Duck
White-throated Treecreeper
Spotted Pardalote
Swift Parrot
Tree Martin
Maned Duck
Mistletoebird

MAMMAL LIST:

Koala: Common. Dozens were seen.
Ring-tailed Possum: Three were noticed by spotlights.
Brush-tailed Possum: Eight observed by roadside.
Grey Kangaroo: Quite plentiful.
Red-necked Wallaby: Many were observed feeding early.
Spiny Anteater: One crossed the track.

REPTILE LIST:

Tree Dragon: One was caught on the track.
Garden Skink: Several were seen basking in the sun.
White's Skink: Common among the rocky outcrops.
Common Bluetongue: One caught crossing Siphon Road.
Shingleback: Several lazing about in sun.
Red-bellied Black Snake: Observed crossing Siphon Road.

VALE CLIFF TINGATE

It was with sadness that we learnt of the death of Mr. Cliff Tingate in July 1979. Cliff was one of the Club's original members, and served on the First Committee; a Committee Member from 1961-65, he was our Librarian for four years from 1962. His main love in natural history was birds, and he became a proficient photographer, although using some rather primitive equipment — showing clearly that it is the photographer, not the camera, that takes the picture.

Cliff was a member of the former Geelong Field Naturalists' Club, serving on the executive committee of that club up until it disbanded; he was for example, Hon. Treasurer in 1926, and in February 1923 exhibited at the club meeting "two rare eggs, Black-throated Grebe, discovered locally". Amongst his many other activities, he was an honorary curator at the old Geelong Museum.

Meeting, 3 July 1979

Syllabus Item: Question panel comprising Messrs. Errey, McCarthy, Pescott and Rowe. Samples of the questions and answers given are:—

Could you supply details of the Rowsley Fault?

The Rowsley Fault has spectacular surface expression, especially along the eastern face of the Brisbane Ranges. Its tail end is near the Sutherlands Creek School. It has been responsible for the Werribee and Lerderderg Gorges and the Parwan Valley as the rivers were forced down to downcut. Movement is still taking place, e.g. the recent earthquake at Ballan. Small shocks are constantly being recorded. It was active up to 200 million years ago, although most activity took place 20 million years ago. The fault is visible between the pumping station at Lerderderg which is on Permian tillite and the upstream slat.

What is the difference between a callistemon and a melaleuca?

Callistemons are mainly eastern Australian plants; melaleucas, also known as honeymyrtles, are found in many forms, from prostrate to the large paperbarks of northern Australia. The basic difference can be seen by examining the flowers, especially the stamens. Melaleucas have stamens grouped in clusters of five, joined together at the base to form a tiny brush; callistemon have individual stamens in a ring around the flower.

What is a graptolite?

Now found only as fossils, graptolites were colonial sea animals, belonging to the Subphylum Hemichordata. They had a communal float, and the hard parts were chitin-like. The remains are usually compressed and carbonised and the skeletons preserved. Graptolites are widespread throughout Ordovician rocks in Victoria.

SPECIMENS:

BANKSIA SPINULOSA
  B. baxteri — seeds and seedlings.
  B. baueri.
  B. ericifolia in Bonsai form.
Grevillea sericea — N.S.W.
  G. glabella — Anakie.
  G. glabella, — Bendigo.

HAKEA LEUCOPTERA

Galls on golden wattle
Galls large and small
Whale tooth (sperm whale,) — Fiji
Baleen plates of blue whale from Warrnambool.
Giant Spider Crab: carapace and legs, washed up at Edwards Point.

GEOLOGY SPECIMENS:

Gangamopteris — Korkuperrimiri Creek.
Graptolites in Ordovician slate — Werribee Gorge.
Glaciated pavement, Permian — Werribee Gorge.
Gypsum crystals out of Tertiary clay — Anglesea.
Gypsum occurring as clay veins in Tertiary clay in cliff — Bird Rock, Torquay.
Calcite $CaCo^3$ in Newer Volcanic Basalt — Fyansford.

Calcite — Point Danger.

Opal from Scoria — Mt. Duneed.

Magnesite from scoria — Mt. Duneed.

Aragonite — Batesfird.

Spotted slate — Budge area, Ingliston.

Leaves of "Laurus" — approach to Werribee.

Glaciated pebbles.

Glaciated striae — Hallett Cove, S.A., on Proterozoic slate from Permian glacial.

Tillite — Ingliston.

MT. BECKWITH EXCURSION

By Jack Wheeler

Postponed from an extremely wet day for November 1978, we hoped for a better day for Sunday, 19 August. It was certainly a better day to the extent of showers, but very wet underfoot with the temperature much milder.

Arriving at Ballarat on time, where the rain had stopped for a short period, our party, 9 less than bus full, split up into two groups, one to inspect trees and hot houses, and the other to inspect the birdlife of the Lake. Of particular notice was a lone Reed Warbler near the kiosk, and this bird was repeatedly giving part of his cheery call, whilst his mates were far up north on a part migration. Several Musk Ducks were noted but one male in particular attracted attention by working up to a full display, complete with whistle for at least ten minutes, and enthralled us all, as well as a nearby female Musk Duck.

We had a wet reception at Mt. Beckworth, with a mist which for the rest of the day, kept the summit partly covered in fog. Lunch was taken within the bus, but by 1 p.m. the mist had cleared and luckily held off for the remainder of the afternoon. Lack of sun kept most of the birds quiet, but one honeyeater in particular was fairly vocal, being the Fuscous, a very plain bird, but being so active in the foliage was not always easy to see. Two cuckoos were particularly vocal, being the Golden Bronze, and the Horsfield Bronze, but we missed the Black-eared Cuckoo reported there by Roger Thomas who visited the area about the same time.

Those who walked the summit track were rewarded with views of the antics of a pair of Whistling Eagles. Near the massive granite rock on the apron to the summit, was a Hardenbergia in full blossom of eye-catching purple. In the same area several Blackwoods were in flower. Further down the gully and flatter slopes beyond and near the bus, the following plants were noted to be flowering — Hovea, Smooth Parrot-pea, Golden Wattle, Yellow Gum, Harbinger-of-spring, Shining Buttercup, and the following orchids, Nodding Greenhood, Dwarf Greenhood, Tall Greenhood, and Slaty Helmet Orchid. Leaves of other orchid species were also found. The planting of a shrub with holly-like foliage with protection from tall netting guards that have been left on plants with several years growth is rather a mystery and same has been taken up with the Forests Commission, who control this area.

On the return trip, the monument on the site of Victoria's first gold find at Clunes was visited and part of the return trip was undertaken by a partly different route.

The bird list for the day did not reach expectations, but, undoubtedly, was due to unfavourable weather. However, a total of 58, the last two sightings being Little Egret and Cattle Egrets approaching Geelong, was a reasonable total considering the conditions experienced. Thanks to those who contributed to both the plant and bird list. All in all, it was a very enjoyable day.

Members' Night 7 August 1979

Mr. Povey showed a movie film and slides of his garden and the birds that visit his plants and syrup feeders. These include honeyeaters, gang gang cockatoos, crimson rosellas and rainbow lorikeets. He had brought in one of the bottle feeders and its stand.

Mr. Pescott spoke, and showed slides on "Birds of the Geelong Region". He is currently preparing a book on this subject.

Mr. Gayner showed slides taken by the late Cliff Tingate. These included early camps at Mud Island, Julia Percy Island, the Little Desert and Hattah.

Specimens from August Meeting:

Grevillea Dargan Hill?
Grevillea Brownii
Grevillea Pink Pearl
Grevillea Crosbie Morrison
Kunzea baxteri
Acacia rotundifolia
Eucalyptus leucoxylon
Euc. gomphocephala
Brown Tree Frog — *Litoria ewingii*
Point Richards

Brown Bittern — Bellarine Highway, Leopold

Old Lady Moth
Casemoth-woolly bear cocoon case with bark, etc. attached
Koala skull — Inverleigh Common
Stones from bull ants nest (large stones)
Stones from meat ants nest (small stones)
An Albino-like wallaby was reported from Steiglitz.
From Portland area (Mr. Stan Rowe).
Acacia sophorae
From Portland area Mr. Stan Rowe)
Boronia pilosa, glabrous variant
Leucopogon
Flame Heath
Epacris impressa
Boneseed
Banksia marginata
Hibbertia fascillaris
Dusty miller
Blunt everlasting? obtusifolia
Correa reflexa, green and red forms
Leucopogon ericoides
Brachycome
Acacia brownei
Climbing sundew

POINT ADDIS AND IRONBARK BASIN EXCURSION

Sunday, 16 September 1979

By Lawrie Conole

The weather during the day was mainly overcast with sunny intervals, a steady breeze blew all day and it rained a little as we left at about 1530 hours. When we arrived at the basin at 0945 hours, we were greeted by thousands of flowering Varnish Wattles and the first birds for the day were Little Raven, Grey Shrike-thrush, White-throated Treecreeper, Grey Fantail and Red Wattlebird. The birdos set off down into the basin, while the botanists stayed up above and delighted in the array of flowering plants.

As we descended into the basin there was a noticeable increase in avian activity — we saw all of the previously mentioned birds plus many more. New Holland Honeyeaters were plentiful in all levels of vegetation, Grey Currawongs called constantly from all around us, Eastern Valley Yellow Robins in pairs were calling and chasing across and beside the track, while the constant and numerous calls of the Spotted Pardalotes were reminiscent of Bell Miners.

Fan-tailed Cuckoos were constantly trilling as we indulged in a little botany at the discovery of a small patch of Maroonhood orchids. The inevitable Superb Fairy-wrens made their presence known and flocks of Crimson Rosellas zoomed overhead. We found some White-naped Honeyeaters who advertised their presence by a sucking noise which has earned them a common name of "sweetsucker".

A Rufous Whistler burst into song and reminded us of the summer to come while overhead Dusky Woodswallows hawked the thousands of insects. Then we sighted a bird we had been looking for since we arrived — the Crescent Honeyeater. A Brown Falcon flew over and demonstrated the reason why it was once called the Cackling Hawk while being hotly pursued by Australian Magpies. Very soon after we were surrounded by Varied Sittellas and it was made quite obvious why what were once species in their own right were lumped — these birds were intermediate between the old species of Orange-winged and Black-capped Sittellas. The two local "bronze cuckoos" began to call and a handy means of separating them was demonstrated to those previously unacquainted with them — the Shining Bronze Cuckoo repeatedly whistles up the scale like someone calling a dog while the Horsfield Bronze Cuckoo does the opposite in whistling down the scale.

Just as we left the cover of the forest a Golden Whistler called. The habitat that we moved into was stunted, salt-burnt, coastal heathland and a look above our heads showed dozens of Welcome Swallows and Fairy Martins. Silvereyes call from the stunted vegetation was one of the highlights of the day was sighted — a magnificent Peregrine Falcon. Excitement continues as a very loud "chip-chip-chip-cheweee . . ." turns out to be the elusive Rufous Bristlebird and in fact, only a few of us managed to see it. Making our way back, we heard the frog-like calls of the Singing Honeyeater and the raucous laughter of the Laughing Kookaburra.

The undergrowth was alive with White-browed Scrub-wrens and Brown Thornbills as we neared the cars. When we rejoined the main group, we discovered that they had seen the Eastern Spinebill, White-eared Honeyeater and Scarlet Robin which had eluded us.

Down on the Point Addis beach the selection of birds became a little different. White-capped, Black-browed, Grey-headed and one of the great albatrosses (Wandering or Royal?) were the most interesting sea-birds added to the list. We can now see three Peregrines and one Marsh Harrier, Australasian Gannet, Pacific and Silver Gulls and a Great Cormorant. The birds then took a back-seat as we inspected the seam of brown coal and the fossils it contained. From the vegetation above a bristlebird called and a Black-faced Cuckoo-shrike flew. Off-shore a flock of six Australian Shelducks make their way east. As we left at about 1530 hours, we saw a Common Starling bringing the day's total to forty-six.

Thank you to the Baverstocks, Paul Moore and my brother Michael for their help in compiling the bird list.

Meeting, 4 September 1979

As Mr. Ken Simpson had been unable to come, Mr. Rupe Ebbels had taken his place at the last minute. He showed two movie films, the first being one made by the late Arthur Chapman. The second was the Kowree Shire film of the Edenhope area. The President expressed appreciation to Mr. Ebbels and his two assistants and moved a vote of thanks in appreciation.

Specimen Table — 4 September:

Yellow-faced Honeyeater killed in a window crash.

Fossil specimens (brachiopods) from area north of Sydney.

Ocean Grove wattles, grevilleas, hardenbergia, bitter pea.

Heath-leaf Banksia, with cutting material, seed cones.

Gum Emperor Moth, with eggs.

Timber grain samples: Grevillea, Silver Banksia, Black Wattle.

SCALY BREASTED LORIKEETS IN NEWTOWN

By Theo Trickett

Returning home on 30 October 1979 from a holiday to the Whipstick and to forests out of Deniliquin, a noise as of baby Rainbow Lorikeets sounded from the garden — but yet it wasn't quite any of the queer sounds the very young ones can make. An investigation during the metallic calls, showed two Scaly-breasted Lorikeets sitting on a bare eucalypt bough, talking and preening; one even obligingly lifted a wing to show the grey, pink and red underwing. There was no doubt about it — the striped green and yellow breast, the all-green head, red eye, coral beak, red tip on the shoulder, dark legs.

Since the first amazement at seeing them so far south of their usual range, the call has become familiar — it is remarkably like that of the Rainbow Lorikeets, except that the voice is metallic.

They seemed, however, to know what nectar pots are for — and on 1-11-79 they were feeding high up in the N.Z. fire tree. It was 4 p.m. and time to fill up the nectar pots — and they sailed down from the tree, then low between the rose bed and the escallonia, and so to the nectar pot trees — as to the manner born, and exactly like the resident birds come.

They use the birdbaths also, and if the Red Wattlebirds will let them have a turn, they will come to the nectar bottle, which is in full view of the kitchen window. It's quite something to see four or five Rainbow and two Scaly-breasted Lorikeets lining up in the small blue buddlea — being harassed by sundry Red Wattlebirds, New Holland, and White-plumed Honeyeaters!

AN AFTERNOON TO REMEMBER

"THE WRONG BAIT"

By Ian Woodland

On our way home from the Angair Show, Mr. and Mrs. Ron Lavery and I travelled along the Forest Road not far from Anglesea. About 400 metres from the Anglesea Road junction, we observed at least nine Maned ducks in the grass beside a dam.

After viewing them for a short time, we proceeded towards Gum Flat, and not far from the Anglesea Service Basin I noticed something large in the middle of the road. Was it a kangaroo? No, it was a large Wedge-tailed Eagle. As we approached, it had difficulty in taking off, because clutched in its talons was a large black bird. In a few seconds the prey fell to the ground, and our car came to a halt.

Mr. Lavery quickly walked to where the unfortunate victim was in the grass at the side of the road. To our surprise the prey turned out to be a Great Cormorant and it quickly fluttered into the centre of the road. We tried to catch it but a truck was coming and unlike many drivers, the driver carefully drove around the bird that was standing in such a dangerous place.

After the truck left the scene, we managed to get close to the cormorant, and with a professional dropping of his hat, Mr. Lavery allowed the distraught bird to take its vengeance out on his hat. Whilst it was pre-occupied, Mr. Lavery caught the bird and carefully carried it back to the car. An old dust coat was wrapped around the bird and soon we were on our way, talking about our experience. Just as we neared Gum Flat Road, there in the middle of the road was a fox, without a care in the world it sauntered into the tall grass near the table drain.

Without further ado, we drove to James Street, Belmont, to see Mr. Jack Wheeler and seek aid for our unfortunate feathered friend.

On arrival at Mr. Jack Wheeler's home we told him of our experience and then presented the victim for observation. Jack went into the garage and soon came out wearing a large pair of leather gloves. As Mr. Lavery unwrapped the bird, he was pecked by the cormorant, and soon Jack's gloves were receiving similar treatment. The movie camera was put to use and we hope to have a record on film of the bird and evidence of the talon marks on its neck.

Sunday, 30 September:

I contacted Mr. Wheeler to see how "Snapper" was getting on and was pleased to hear that he was in fine shape and would probably be released on Tuesday at the Ocean Grove Nature Reserve, but fate took a turn and he died on Monday.

BRISBANE RANGES EXCURSION

17 September, 1978.

Number of cars: 15.

Number of members: approx. 35.

Weather: Fine and cool. Showers late in the afternoon.

Proceeded in convoy as planned. First Koala was sighted near Maude, in tree beside the road. The bird list was compiled by Laurie Conole, who noted a flock of ibis (White and Straw-necked) numbering 60-65, also several species of parrot including Crimson and Eastern Rosellas, Red-backed, Blue-winged, Musk Lorikeets, Galahs, and Sulphur-crested Cockatoos, as we progressed.

1st Stop

On arrival at National Park Area No. 21 in Upper Anakie Road, some time was spent exploring the tracks, and here we listed 60 species of plants in flower, including Droseras (Sundews), Correa, Cryptandra, Acacias, Hibbertia, *Grev. chrysophaea* (Golden Grev.), etc. Twenty orchids were noted, of special interest were *Chiloglottis cornuta* (Green Bird Orchid), *Chiloglottis reflexa* (Autumn Bird Orchid), and *Corybas diemenicus* (Slaty Helmet Orchid).

Also recorded were two Koalas and a lizard (unidentified), and included in bird list: Striated Pardalote.

2nd Stop:

Lunch stop was on Sawpit Gully Road, another excellent area for Orchids, and one recommended by Ranger Max Kewish. Here, a busload of Field Naturalists from Melbourne joined us, and we greatly enjoyed their company. Further plants were noted, including excellent specimens of *Caladenia clavigera* (Clubbed Spider-orchid). We were delighted to discover that some orchids which Max feared had been eaten off by kangaroos, were shooting again, though not yet in flower. Special sightings of birds in this area included the Olive-backed Oriole, and Yellow-tufted Honeyeater.

Our friends from Melbourne left us at this point, as they wished to visit the area where we had made our first stop, whilst we moved on towards Ballan Road, thence to Nelson's Lookout.

3rd Stop:

With the weather remaining fine, we were delighted with the excellent views of the surrounding district, and could see as far as the skyline of Melbourne. Once again, we found ourselves amidst a change of plant life, with colourful display of flowering plants, including *Stylidium graminifolium* (Trigger plant), *Lissanthe strigosa* (Peach Heath), *Grev. rosmarinifolia* (Rosemary Grev.), *Leucopogon biflorus* (Twin-flower Beard-Heath), *Pultenaea gunnii* (Golden Bush-pea), and a veritable carpet of *Pterostylis nutans* (Nodding Greenhoods). Birds included the Spotted Pardalote.

Here we received a visit from the relieving Ranger, who was interested to learn of Ira Savage's report of what appeared to be traps near Sawpit Gully, and he drove back to investigate.

4th Stop:

The convoy then rejoined the Ballan Road, and continued along to Burdidwarrah for afternoon tea and further bird-watching. Large numbers of Dusky Wood Swallows were busily at work in the area; the botany group found yet another orchid, *Diuris pedunculata* (Golden Moths); three more Koalas were sighted, one with a young one, bringing the day's total to seven, and an Echidna was discovered busily digging into the soil beside the road.

From here we made our way home by choice of route. Special mention should be made of the assistance given to the leaders by Ranger Max Kewish, in planning this excursion.

G.Y./P.F.C.

Staughton Vale Plant List

11 to 13 August, 1979.

By Gwen Yarnold

STAUGHTON VALE SCHOOL AREA

DENNSTAEDTIACEAE:
Pteridium esculentum
Aust. bracken

ADIANTACEAE:
Adiantum aethiopicum
Common Maidenhair

ASPLENIACEAE:
Asplenium flabellifolium
Necklace Fern

GRAMINEAE (POACEAE):
Poa australis
Tussock Grass
Agrostis avenacea
Blown Grass
Themeda australis
Kangaroo Grass

CYPERACEAE:
Lepidosperma laterale
Variable Sword-sedge
Carex appressa
Tall Sedge

JUNCACEAE:
Juncus pallidus
Pale Rush

LILIACEAE:
Xanthorrhoea australis
Austral Grass-tree
Lomandra filiformis
Wattle Mat-rush
L. longifolia
Spiny-headed Mat-rush
Dianella revoluta
Black-anther Flax-lily
Anguillaria dioica
Early Nancy
Burchardia umbellata
Milkmaids

ORCHIDACEAE:
Acianthus caudatus
Mayfly Orchid
Pterostylis parviflora
Tiny Greenhood
Pt. nana
Dwarf Greenhood
Pt. nutans
Nodding Greenhood
Pt. longifolia
Tall Greenhood

CASUARINACEAE:
Casuarina littoralis
Black She-oak

PROTEACEAE:
Isopogon ceratophyllus
Horny Cone-bush
Grevillea steiglitziana
Brisbane Ranges Grevillea
G. chrysophaea
Golden Grevillea
Hakea sericea
Silky Hakea
Lomatia ilicifolia
Holly Lomatia
Banksia marginata
Silver Banksia

SANTALACEAE:
Exocarpos cupressiformis
Cherry Ballart

LORANTHACEAE:
Amyema pendulum
Drooping Mistletoe

CHENOPODIACEAE
Rhagodia hastata
Saloop

CARYOPHYLLACEAE:
Stellaria pungens
Prickly Starwort

RANUNCULACEAE:
Clematis microphylla
Small-leaved Clematis

LAURACEAE:
Cassytha melantha
Coarse Dodder-laurel

DROSERACEAE:
Drosera auriculata
Tall Sundew
D. whittakeri
Scented Sundew

TREMANDRACEAE:
Tetratheca ciliata
Pink Bells

PITTOSPORACEAE:
Rhytidosporum procumbens (Marianthus)
White Marianth

ROSACEAE:
Acaena anserinifolia
Bidgee-widgee
A. echinata
Sheep's Burr

MIMOSACEAE:
Acacia verticillata
Prickly Moses
A. aspera
Rough Wattle
A. armata
Hedge Wattle
A. gunnii
Ploughshare Wattle
A. acinacea
Gold-dust Wattle
A. pycnantha
Golden Wattle
A. myrtifolia
Myrtle Wattle
A. melanoxylon
Blackwood
A. mearnsii
Black Wattle

PAPILIONACEAE:
Pultenaea pedunculata
Matted Bush-pea
P. daphnoides
Large-leaf Bush-pea
P. gunnii
Golden Bush-pea
P. humilis
Bush-pea
Platylobium obtusangulum
Common Flat-pea
Hovea heterophylla
Common Hovea
Kennedia prostrata
Running Postman

GERANIACEAE:
Pelargonium rodneyanum
Magenta Stork's-bill

OXALIDACEAE:
Oxalis corniculata
Yellow Wood-sorrel

RUTACEAE:
Correa reflexa
Common Correa

RHAMNACEAE:
Pomaderris prunifolia
Pomaderris

DILLENIACEAE:
Hibbertia stricta
Erect Guinea-flower

VIOLACEAE:
Viola hederacea
Ivy-leaf Violet
C. sieberana
Tiny Violet

MYRTACEAE:
Euc. macrorhyncha
Red Stringybark
Euc. obliqua
Messmate
Euc. leucoxylon
Yellow gum

Euc. sideroxylon
Red Ironbark
Leptospermum myrsinoides
Silky Tea-tree
L. lanigerum
Woolly Tea-tree

HALORAGACEAE:
Haloragis tetragyna
Common Raspwort

EPACRIDACEAE:
Epacris impressa
Common Heath
Astroloma humifusum
Cranberry Heath
Leucopoon virgatus
Common Beard-heath
Acrotriche serrulata
Honey-pots
Brachyloma daphnoides
Daphne Heath

CONVOLVULACEAE:
Dichondra repens
Kidney-weed
Convolvulus erubescens
Pink Bindweed

SCROPHULARIACEAE:
Parahebe perfoliata
Diggers' Speedwell

ASTERACEAE:
Senecio lautus
Variable Groundsel
S. quadridentatus
Cotton Fireweed
Cymbonotus preissianus
Austral Bear's-ear

ANAKIE GORGE-NELSON'S LOOKOUT WALK

DICKSONIACEAE:
Dicksonia antarctica
Soft Tree-fern

DENNSTAEDTIACEAE:
Hypolepis punctata
Downy Ground-fern
ORCHIDACEAE:
Acianthus reniformis
Mosquito Orchid
A. exsertus
Gnat Orchid
Corybas diemenicus
Slaty Helmet-orchid
PROTEACEAE:
Grevillea rosmarinifolia
Rosemary Grevillea
AIZOACEAE:
Carpobrotus
Pigface
LAURACEAE:
Cassytha glabella
Slender Dodder-laurel
PITTOSPORACEAE:
Bursaria spinosa
Sweet Bursaria
MIMOSACEAE:
Acacia dealbata
Silver Wattle
PAPILIONACEAE:
Pultenaea scabra
Rough Bush-pea
Hardenbergia violacea
Purple Coral-pea
VIOLACEAE:
Hymenanthera dentata
Tree Violet
MYRTACEAE:
Euc. baxteri
Brown Stringybark
Euc. viminalis
Manna Gum
HALORAGACEAE:
Myriophyllum propinquum
Water-milfoil
EPACRIDACEAE:
Monotoca scoparia
Prickly Broom-heath

HOUR COUNT No. 31 — ST. ALBANS, NEW SOUTH WALES

By Roy Wheeler

There is a small area north of Sydney, N.S.W., known as the Macdonald Valley and in the early days of settlement had a small population of emancipists and they formed their own small communities, built their churches and had their own separate cemeteries. Then as now the only road over the Hawkesbury River went via Wiseman's Ferry, built by Soloman Wiseman in 1827. On the mountain ridges of its eastern boundary convicts under the brilliant engineering of Sir Thomas Mitchell, Surveyor General of the Colony from 1828 to 1855, were building the Great North Road. The settlers were mostly farmers and in the book "The Forgotten Valley" by M. Hutton Neve, tells of hardships endured by these families, their trials and tribulations. Now the only relics and memorials are in a sorry state of neglect, but they still survive as a proud tribute to the spirit of these courageous and sturdy settlers. One of these is the Settlers Arms Hotel at St. Albans built in 1842. In March 1979 during a visit to Sydney some friends drove me to Wiseman's Ferry and St. Albans and on to an area known as The Common for lunch.

Common land dates back from Anglo-Saxon times. It was "Folkland" belonging to the people of a particular area but owned by no one individual. The early Governors of the Colony had authority to make grants of land so on August 11, 1804 Governor King issed a General Order allocating Common Land. At the end of 1823 some settlers of the Macdonald Valley petitioned the Governor and on March 16, 1824 the Surveyor General wrote to Surveyor Robert Hoddle of Richmond to allocate 2000 acres of Crown Land for a Common. The area suggested was not agreed upon by the settlers and although used as a common was not gazetted. In 1841 it was discovered that the settlers did not have a valid title to the land. After many delays the Wallambine Common was given legal status by the Governor, Sir Charles Fitzroy on March 4, 1853. The trustees were five local residents and their successors. Under the act of 1853 the title of ownership of the Common is vested in Settlers, Cultivators and other inhabitants of the District and the use of the Common is reserved entirely for them. The Common is private property, except for the public road passing through it. The Trustees in recent years have appointed a settler as Common Ranger. There have been troubles with outsiders fishing and shooting the native wildlife. In 1975 a major threat to the Common emerged. The Gosford-Wyong Council put up a proposal to dam the Valley for a water supply to the area. This was strongly resisted and in July 1979 it had a reprieve and the dam is to be built closer to Gosford. The Boree Swamp part of the Common has increased in size in recent years, the big floods of 1949 and subsequent floods have thrown a bar across the Wallambine Creek so a large lagoon has been formed behind this bar attracting increased bird life to the area.

It was here not for from the Settlers Arms Hotel and on a rise overlooking the

lagoon that I did an hour count, details herewith and the birds in order of sighting: St. Albans, N.S.W. The Common overlooking Boree Swamp, March 20, 1979. 12.30 to 1.30 p.m. Fine and sunny with some cloud and a light south breeze. Roy Wheeler, Bill and Marie Thompson.
Black Swan 35, Black Duck 6, Dusky Moorhen 12, Pelican 1, Rainbow Bird 14, Jacky Winter 4, Rufous Whistler 2, Welcome Swallow 43, Tree Martin 10, Little Black Cormorant 2, Black-backed Magpie 4, Magpie Lark 4, Silvereye 2, Raven 6, White-faced Heron 5, Noisy Minor 4, Double-bar Finch 4, Blue Wren 16, Little Pied Cormorant 2, Scissors Grinder 2, Willie Wagtail 2, White-throated Warbler 2, Mistletoe-bird 1, Coot 1, Laughing Kookaburra 3, Noisy Friarbird 2, and Spurwinged Plover 3. 27 Species and 190 individuals.

I would like to thank Marie Thompson of Thornleigh and Arthur Austin of Adams town for their help in locating material for this count. During our visit the St. Albans Post Office was to be closed by Australia Post and a petition signed by the local residents had been sent to the authorities. They had a scarecrow effigy hanging from a nearby tree representing the local post office. Was it to live or die? The petition was rejected, so I was informed, so after 100 years of service the Post Office is now no longer there. It is still the Forgotten Valley.

BALYANG BIRDS

Could anyone fail to be impressed by the wonderful assemblage of birds which roost in the trees on the horse-shoe shaped centre island at Balyang Sanctuary?

At the present time, hundreds of birds drop in late in the afternoon and at sunset, and settle on every available perching spot in the gums, sheoaks and willows; the cormorants we seem willing to accept without comment, except to worry (quite unnecessarily I believe) that their white-wash will kill the trees.

But in the last few months, Cattle Egrets have begun roosting there too, and last Sunday there must have been well in excess of 100 perched there at sunset — and *that* must be commented upon!

The cormorants are first to come in, some being tucked-in on their favourite roost by 5.00 p.m.; in the next hour more arrive, flying in from the north-east, and dropping like stones from perhaps 200 metres. Usually they bathe before retiring.

Egrets are later arrivals, beating in from the river valley to the west; they select the higher branches as perches, presumably by preference although all the lower ones are already well tenanted by the cormorants.

If you have not seen them, it is well worth a visit.

(T.P.)

Ken Jenkin Print

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NATIONAL MUSEUM 11 JUN 1980 OF VICTORIA

MUD ISLAND

(By Roy Wheeler).

The Ornithological history of Mud Island in Port Phillip Bay is a most interesting one. It was in 1803 that it was first mentioned when Lt.-Colonel Collins founded a penal settlement at Sorrento. Shortage of water compelled the settlement to be abandoned soon after, but during the stay, food supplies were replenished by visits to the island where moulting swans were captured for food and pelicans were also sighted. In its early history it was known as Cygnet Island and Flat Island.

The island was not mentioned again until 1882 when A. J. Campbell in his book "Nests and Eggs of Birds found Breeding in Australia" (1900) mentions the White-faced Storm-petrels nesting on Mud Island. He also mentioned a Coastal Boobialla tree growing on Boatswain Island. This tree is still flourishing nearly a century later.

The next reference is on page 77 of Belcher's book "Birds of Geelong" when he wrote "We have in the Geelong Museum the only example of the Grey Plover which I have seen from the district. It was shot by Mr. L. Buckland in February, 1893, at Mud Island, when in company with a number of Lesser Golden Plover."

Charles Belcher visited Mud Island in late November 1901 and the story of this visit is on pages 38-40 of his book. He also said, "Shortly after my visit, in consequence of representations made to the authorities, Mud Island was proclaimed a Bird Sanctuary." Of recent years it has become a State Faunal Reserve.

On page 166 of the "Victorian Naturalist" Volume 19 (1902) is a list of 25 species seen on Mud Island by Mr. Townshend. In 1907 Mr. A. H. E. Mattingley published a list in "The Emu" Volume 6 which added another 16 species to Mud Island list. From 1914 to 1919 a number of White-faced Storm-petrels were banded by members of the Bird Observers Club and the full story by Mr. Les Chandler appears in "The Australian Bird Watcher" Vol. 1, No. 1. Two recoveries of banded birds were from Gembrook and Rosebrook.

In "The Emu" Vol. 27 on page 254 Mr. Frank Howe writes, "I have an undoubted set of three eggs of the Little Tern taken on Mud Island amongst the nests of Fairy Terns". Of recent years the Little Tern often visits the island. From 1931 to 1950 members of the Leach Memorial Club and the Bird Observers Clubs visited the island most years and included Miss Wigan, Bill Heathcote and Norm Barrett. Their reports were recorded in "Bird Observers Notes" and "The Victorian Naturalist".

My first visit to Mud Island was in January 1940 and we camped amongst the Leucopogens in the dunes on Western Island. All these trees have been washed away by the high tides after the Rip was deepened during the war years. When I was there World War 2 had not long been declared and the powerful beams of a searchlight at Point Lonsdale swept across the island every few minutes. In 1938 a tornado had hit the northern parts of Mud Island and flattened many trees and saltbush.

In 1941 Mr. J. H. Reed in "The Emu" Vol. 40, page 356 gives notes on a visit to Mud Island and Mr. H. E. Tarr and J. Launder spent a week on the island in 1953 and their sightings were published in "The Bird Observer". From 1956 to 1970 firstly the Altona Survey Group and later the Victorian Ornithological Research Group (V.O.R.G.) made regular visits to the island on Australia Day weekend to band many thousands of White-faced Storm-petrels with only one good result. A banded bird was captured on a ship off Geraldton, W.A. and because one number was missing in the ship's report, it was not a confirmed recovery. All we know is that Miss Gracie Bowker of Port Fairy had banded the bird on Mud Island.

The Silver Gull which dominates the nesting on the island at the present time first nested there in 1958 when David Morgan of the McCoy Society found a nest of three eggs on a partly sand covered cardboard plate on Western Island. Now the island has thousands of gulls nesting there from June to February. The nesting has fertilised the island to such an extent that the Coast Salt Bush is flourishing as is the Yellow Horned-poppy and other introduced plants. The density of the nesting gulls must restrict other nesting birds including the terns and local waders as well as the White-faced Storm-petrels. From 1970 the January visits have been in the hands of the Geelong Field Naturalists Club and last year I visited the island for the first time for many years and I did an hour count seated on a canvas stool. Try it some time, counting each bird seen or heard within binocular range within the hour.

Mud Island, Vic. From northern beach near lagoon entrance. January 28, 1979. Fine with cool southerlies. 7.45 to 8.45 a.m. Birds in order of sighting. Silver Gull, 2000; Crested Tern, 300; Red-necked Stint, 60; Pied Oystercatcher, 25; Knot, 20; Black Swan, 56; Mongolian Sand-dotterel, 1; Turnstone, 4; Common Tern, 4; Fairy Tern, 2; Greenshank, 1; Skylark, 1; Grey Plover, 2; Pacific Gull, 37; Bar-tailed Godwit, 3; White-faced Heron, 1; Black Cormorant, 1; Little Pied Cormorant, 1; Starling, 6; Red-capped Dotterel, 2; House Sparrow, 1; Pelican, 4; Curlew Sandpiper, 5; Spurwinged Plover, 1; Great Knot, 6; Pied Cormorant, 1.

Total 26 special and 2643 individuals.

P.S. The total bird list for Mud Island is now 122 species. W.R.W.

KING ISLAND VISIT

26 to 28 January, 1980

(By Geoff Mathison)

Following a successful club trip to Flinders Island in 1979, a trip to King Island was included in our syllabus for January, 1980, and sixteen members gathered at Grovedale Airport on a grey, squally morning for the flight in two chartered aircraft which would take us to Currie, the main town on the Island — population about 800.

At the historic Clare Cottage, our headquarters for the weekend, we met Mr. Paul Barnett, farmer and naturalist, who acted as guide and informant throughout our stay. On Sunday and Monday he was assisted by his wife, Olwyn, who is the secretary of the King Island Field Naturalists' Club.

King Island is a low lying plateau, 58 kms. long and 21 kms. wide, midway between Victoria and Tasmania at the western end of Bass Strait. Annual rainfall is around 1,000 mm so maybe we were fortunate to have a fine weekend. Once forests of very large trees (bluegum, blackwood, etc.) existed but now much of the land has been cleared for farming, although seen from the air, quite large areas of scrub remain. Without doubt, Swamp Paperbark *(Melaleuca ericifolia)* is the most obvious tree forming very dense thickets and woodlands. Many have also been left as shelter-belts and plantations on the farms.

On Saturday the 26th, after a short stop at Currie Harbour (Fairy Tern, Musk Duck, Silver Gull rookery), we travelled south to Ettrick River (beach washed Fairy Penguin, waders, cormorants) then through Pearshape to a sheltered lunch spot where some members got their first glimpse of the Yellow-throated Honeyeater. Continuing to the "Petrified Forest", a stop was made to look at Blue Gum *(Euc. globulus)* and Manna Gum *(Euc. viminalis)* growing as "mallee" scrub.

The "Petrified Forest" was a good example of calcareous tree and shrub roots exposed by erosion of the dunes and brought forth the cameras. The situation of the "blow" above the rugged coastline also brought forth the comment "a likely site for aboriginal middens". This produced the information that there is very little evidence of aborigines ever having lived on the Island. One archaeologist was reputed to have found some artifacts recently, but there seems to be some doubt. This is strange for an island so amply stocked with food, emus now extinct), marsupials, snakes, etc.

From the "Forest", we went to a point on the western coast about 2 kms further south. After a walk through an extensive mutton bird rookery, we came onto a "rock garden" high on the rugged cliffs. A very colourful area made so by the lichens, succulents and other small plants hugging the rocks and ground. Near here we saw a dead Bennett's wallaby and evidence of where others had been gutted. I understand fishermen still use wallabies and pademelons for bait in crap-pots.

Time prevented us from visiting a dry swamp area which apparently abounds with large copper-head snakes quiet enough to be photographed at very close range.

On Saturday night, we met with the King Island Field Nats. for a slide session and chat at the very fine Area School in Currie.

The first activity on Sunday, the 27th, was a visit to the scheelite mine at Grassy on the eastern coast. While those more interested in geology went underground and undersea in the mine, the remainder of the party went to the end of the breakwater which now joins Granite Island to the mainland of King Island. Here we observed young Fairy Penguins sheltering under the boulders. There is still a small penguin rookery on the island but since the breakwater was built, the Fairy Prions have disappeared. Cats are suspected. Incidentally, there are no foxes and no rabbits on King Island.

After looking at the disused open cut mine — the scheelite is now extracted from two underground mines — we travelled north up the east coast to Naracoopa. At this attractive village, an abandoned mineral sands plant has left a 6 ha. scar at the northern end of the beach. However, it is slowly being reclaimed by the natural vegetation. Fortunately, no boneseed planting as in New South Wales, although it does occur on the island and the K.I. Field Nats. have a pulling programme.

A stop was made midway between Naracoopa and Sea Elephant in the heathland that had been burned about three years ago. The highlight here was the scores of Large Tongue Orchids and Horned Orchids. We also recorded the first Yellow tailed Black Cockatoos here.

We had expected to see many waders and water birds on the estuary at Sea Elephant, but our luck was out. However, we did see our first Black Currawongs and had good views of Dusky Robins. Neither species occur on the Australian mainland. We also recorded the Sea Eagle.

Some weathered whale bones were scattered along the estuary shoreline. Did the animal die a natural death, I wonder?

We returned through Naracoopa and thence to the Pegarah Forest Reserve for the rest of the afternoon. A short walk brought us to a very large Sea Eagle's nest high in a eucalyptus. This nest has been in use since 1952. We were also shown a Rough Treefern some 15 metres tall as well as Soft Treeferns, Finger Ferns, etc. Another stop in the Reserve gave some members excellent views of the Dusky Robin, Strong-billed and Black-headed Honeyeaters. Grey Fantails were very much in evidence.

Monday was "up north", our main destination being Lake Martha Lavinia. However, we detoured to the west coast at Yellow Rock and on the fine beach we added the Hooded Dotterel to the bird list.

Lake Martha Lavinia is an attractive, small freshwater lake very close to the north-eastern coast. The surrounding area is heathland and sand dune scrub reminiscent of Big Desert country. There does not appear to be any real stream draining into the lake, but water was seeping (in spots running quite strongly) out between the sand and the peaty soil layer which apparently formed the bottom of the lake. The area is a favoured picnic spot.

I think the highlight here was a nest of the Black-fronted Dotterel. The birds were on the shore, although not seen at the nest. The eggs looked exactly like those in the Readers Digest Book of Australian Birds. The Brown Scrubwren was seen at this spot.

Our last spot before the Currie Airport was at the kelp processing plant just out of town. This is an important industry for the island with an annual revenue of some two million dollars. The dried and processed bull-kelp is containerised and exported to Scotland.

Our return to the Grovedale Airport, rock specimens and all, ended an enticing glimpse of an area which holds much of interest to the naturalist and, like Flinders Island, a longer and more leisurely stay would be very rewarding.

GEOLOGICAL FEATURES

(By Stan Rowe)

The main items of geological interest was the scheelite mine, operated by King Island Scheelite Limited, eventually a subsidiary of Peko-Wallsend. The deposit was discovered in 1911 and production has been almost continuous since 1937, until 1974 from an open pit which yielded over six million tonnes of ore (average grade 0.53% tungstic oxide) and since then from two underground mines with annual production of 310,000 tonnes (0.7%); reserves are estimated at seven million tonnes.

Scheelite (calcium tungstate) is the less common of the two ores of tungsten, the other being wolframite (iron manganese tungstate); the major uses of tungsten are in alloy steels (for hardness at high temperatures, etc.), and in tungsten carbide tipped cutting tools, while a minor, though obvious, use is in light globe filaments. The scheelite is a rather unspectacular white to grey mineral and is quite difficult to distinguish in the ore. Under ultraviolet light (short-wave) it is a different matter, however, as was seen on Sunday evening when the lucky ones went down the mine and examined their spoils. Then the ore becomes alive with the gold of the pure scheelite. The ore body is believed to have been formed by the infiltration and alteration of dolomitic limestones by mineralising solutions associated with nearby granite intrusions. Amongst the other minerals of interest in the ore body are molybdenite, pyrite, pyrrhotite, epidote and beautiful dark crystals of andradite garnet, all of which may be found in the overburden used to build the wharf.

Another outcrop of interest was at Lake Martha Lavinia, where rounded outcrops of granite occurred by the shore; associated with these were veins of pegmatite, a coarser rock, containing quartz, feldspar, white mica and abundant black tourmaline.

KING ISLAND BIRD LIST

(By Geoff Mathison).

Fairy Penguin: Beach washed adult, Ettrick River mouth. Young birds at rookery on Granite Is., Grassy—connected to mainland by breakwater.

**Californian Quail: One bird Seal Rocks Road.

Bush Bronzewing: Occasional.

Eastern Swamphen.

Coot.

Short-tailed Shearwater: Seen offshore. Observed large rookery on coast south of Seal Rocks.

Black-faced Cormorant: Fairly common in coastal areas.

Little Black Cormorant.

Little Pied Cormorant: Appeared to be common.

Black Cormorant.

Australian Gannet.

Fairy Tern: Seen at Currie Harbour.

Crested Terns: Seen south of Currie and at Yellow Rock.

Silver Gull: Well distributed all over inland and coast.

Pacific Gull: Both adult and immature

Spur-winged Plover: Well distributed.

Hooded Dotterel: Mature and immature birds at Yellow Rock.

Black-fronted Dotterel: Lake Martha Lavinia. Nest with three eggs.

Red-capped Dotterel: Common on beaches visited, and at Lake Martha Lavinia.

Red-necked Stint: Common on beaches visited, and at Lake Martha Lavinia.

Turnstone?: Approximately 25 birds at Ettrick River mouth.

White-faced Heron Well distributed.

Nankeen Night Heron: Not seen but local report of small breeding colony at Lake Martha Lavinia.

White-faced Heron: Well distributed.

Black Swan: Common and well distributed.

Black Duck: Common.

Musk Duck: Seen Currie Harbour, Pearshape Lagoon, Lake Martha Lavinia.

White-breasted Sea Eagle: One bird at Sea Elephant. Nest observed in Pegarah Forest Reserve is known to have been used since 1952.

Brown Hawk: One bird seen.

Nankeen Kestrel: Several seen in most areas.

Yellow-tailed Black Cockatoo: A few birds seen between Naracoopa and Sea Elephant.

*Green Rosella: Heard in Pegarah Forest.

Spine-tailed Swift: One bird Pegarah forest.

Fan-tailed Cuckoo : Heard calling Currie and Lake Martha Lavinia.

Horsfield Bronze Cuckoo: Heard at Currie.

Welcome Swallow: Common all over.

Grey Fantail: Common in scrub.

Satin Flycatcher: Two male, two female birds seen Pegarah forest.

Flame Robin Two sightings. Lake Martha Lavinia and Pegarah.

*Dusky Robin: Numerous sightings.

Golden Whistler: Heard in Pegarah forest.

Grey Thrush.

Blackbird: Very common.

Whitefronted Chat: Common and well distributed.

*Ewings Thornbill: Very like Brown Thornbill.

*Brown Scrubwren: Observed at Lake Martha Lavinia.

Superb Blue Wren: Common in scrub and along roadsides.
Grey-breasted Silvereye: Everywhere.
*Strong-billed Honeyeater: Several birds Pegarah forest area.
*Yellow-throated Honeyeater: Observed in all areas visited.
Yellow-winged Honeyeater: Common.
*Black-headed Honeyeater: Pegarah forest area.
Pipit: Occasional.
**Skylark: Common.
**Goldfinch: Common.
**House Sparrow Seen at Currie area.
**Starling: Common and well distributed.
Little Raven: One flock near Surprise Bay.
White-backed Magpie: Common.
*Black Currawong: Seen at Sea Elephant and Lake Martha Lavinia.
**Ring-necked Pheasant: One bird seen at Yellow Rock but apparently common.
Golden-headed Fantail Warbler: Heard at Yellow Rock.
Little Grebe: One bird on waterhole near Currie.
Brown Quail.
Swamp Harrier: Very common.
*Denotes birds that do not occur naturally on the Australian mainland.

**Denotes introduced species.

64 species.

FLORA OF KING ISLAND

January, 1980

(By Edna Yeoman)

As about half of this island has been cleared and grazed for many years, introduced weeds were common — boxthorn, thistles, gorse, and boneseed.

In the forested areas we found the plants very similar to our Otway flora.

FERNS: Not so many species as in our gullies.
Gleichenia microphylla: Scrambling Coral-fern.
Todea barbara: Austral King-fern.
Hymenophyllum australe: Austral Filmy-fern.
Grammitis billardiere: Finger-fern.
Lindsaea linearis: Screw-fern.
Histiopteris incisa: Bats-wing fern.
Asplenium obtusatum: Shore spleenwort.
Cyathea australis: Rough Tree-fern.
Dicksonia antarctica: Soft Tree-fern.
Sticherus tenen: Silky Fan-fern.
Blechnum watsii: Hard Water-fern. Different growth pattern branching at tips of frond.
Blechnum nudeem: Fishbone Water-fern. Also different from usual, with bi-pinnate ends to fronds.

ORCHIDS.

Thelymitra retecta: Sun orchid.
Thelymitra pauciflora: Slender sun-orchid.
Microtis unifolia: Onion orchid.
Chiloglottis cornuta: Green bird-orchid.
Gastrodia sesamoides: Cinnamon bells. Potato orchid.

Cryptostylis subulata: Large tongue orchid.

Orthoceris strictum: Horned orchid. These last two, very large and plentiful on E. coast near Sea Elephant.

TREES.

Eucalyptus ovata: Swamp gum. Growing on dryest hills in the island.
Eucalyptus globulus: Southern Blue-gum. Very large trees in the gullies.
Eucalyptus viminalis: Manna gum. Very large trees in the gullies. These three eucalypts grew on the South-west coast as a mallee form, stunted and many trunked.

ACACIAS.

Acacia melanoxylon: Blackwood. Plentiful.
Acacia suavilons: Sweet wattle.
Acacia verticellata‘ Prickly Moses. A soft weeping tree, very attractive.
Acacia longifolia (var. sophorae): Coast wattle.
Acacia mucronata: Narrow-leaf wattle. These last two species were hybridising freely, with many variations in leafage. East coast near Sea Elephant.

LEPTOSPERMUM.

Leptospermum scoparium: Manuka.
Leptospermum lawigatum: Coast tea-tree. Both very plentiful.
Casuarina monilifera: Dwarf she-oak. Only type of casuarina on King Is.
Banksia marginata Silver banksia.
Pittosporum bicolor: Banyalla. Much paler, softer and longer leaves than the Victorian species.
Drimys lanceolata: Mountain pepper.
Hedycarya angustifolia: Austral mulberry.

SMALLER SHRUBS AND PLANTS.

Bauera rubioides: Wiry baeura. A small prostrate form.
Clematic aristata.
Wahlenbergia gracilenta.
Mentha diemenica: Slender mint.
Pelargonium australe: Austral stork's-bill.
Peersoonia juniperina: Prickly geebung.
Dilwinnia glaborimma: Smooth parrot-pea. Only one on the Island.
Dianella laevis: Pale flax-lily.
Cassytha pubescens: Downy doddex-laurel.
Olearia ramulosa: Twiggy daisy bush.
Olearia argophylla: Musk daisy bush.
Olearia lepidophylla: Club-moss daisy bush.
Boronia parviflora: Swamp boronia.
Correa backhousiana: Tall coastal bush.
Cassinia aculeata: Common cassinia.
Pomaderris apetala: Tasmanian dog-wood.
Myoporium insulare: Common boobialla.
Drossera binata: Forked sun-dew. Large plants, flowering.
Drossera pygmaea: Tiny sun-dew.
Pimelea axiflora: Boot-lace bush.
Pimelea serphyllifolia: Thyme rice-flower.
Melaleuca ericifolia: Swamp paper-bark.

GENERAL MEETING . . .

6 NOVEMBER, 1979

Mr. Richard Loyn first spoke of recent findings about Orange-bellied Parrots. There appear to be about 90 birds in existence; 56 have been seen together at Point Wilson, and 26-28 at Swan Island, three at Mud Islands and one at Breamlea. There is some movement between Point Wilson and Swan Island. 24 parrots have been recorded from South Australia and four from Nelson. Feeding varies throughout the year: *Salicornia* seed is eaten at the beginning of the season, then introduced seed in the filtration paddocks (at Point Wilson), then *arthrocnemun* when the birds begin to migrate, and seeds in the paddocks in October.

A bird was seen in moulting plumage at Point Wilson, and an unconfirmed report of a parrot at Peterborough in January could mean that not all birds leave the mainland in summer and may even nest here.

Mr. Loyn then spoke of his work with the Forestry Department in investigating the effects of various forest practices on vegetation and wildlife. He concentrated mainly on the Boola Boola district in central district which has been milled for sawlogs and pulpwood since the 1940s. Some trees are left standing, and the forest left to regenerate naturally. It is a mixed species forest. Three original areas have been compared with regenerating areas. The commonest bird is the Brown Thornbill and the commonest mammal the Bush Rat.

The gullies have the highest bird populations even when selectively logged. There are low bird populations soon after logging, and a peak is reached at 15 years after logging when there is a dense understory. Fewer birds are present at the pole tree stage. Mr. Loyn found that utilisation has not meant a great loss of species, and recommends that gullies should be left untouched. Substantial patches of mature trees should be left rather than isolated trees. This means that trees with nesting holes would be left in sufficient quantity.

EXCURSION REPORT

CASTLEMAINE, FRYERSTOWN, VAUGHAN — 18 NOVEMBER 1979

A full busload plus an overflow booking of four who accompanied the bus in their vehicle, enjoyed a pleasurable and most informative day tour lasting 10 hours.

With Stan Rowe as leader, the geology of this interesting region was a fascinating feature. The two main types of terrain were the newer volcanics of Western Victoria's great basalt plain ranging in age up to two million years, and the much older Ordivician sediments of slates, siltstones and impure sandstones laid down some 450 to 500 million years ago. These two types alternated through the day, with Mt. Anakie, Mt. Wallace and Mt. Franklin standing out as three of the nearer areas of volcanic eruption, and the Brisbane Ranges (Rowsley Scarp) and the Castlemaine hills providing examples of the Ordivician rocks. These latter are typical of the Victorian goldfields, both Steiglitz and Castlemaine producing great riches around the middle of last century.

A third type of country consisted of granite outcrops, of which the You Yangs and granite tor at Fairy Park were conspicuous.

When Castlemaine was reached about 10.30, most members visited the Market Museum, after which an historic tour of the town was made, Miss Parry giving us a travelling lecture as we went.

Lunch was enjoyed in the Castlemaine Gardens, where we were joined by Ern Perkins of Castlemaine F.N.C., who took over as botanical leader for somes miles around local mining and wildflower areas, and supplied us with a bundle of *Castlemaine Naturalists* for our library.

Most orchids were finished, but several Green-comb Spiders and Onion-Orchids were seen. Everlastings brightened the hillsides, the golden form of Hoary Sunray being very conspicuous. Flax-lilies, Mountain Grevilleas and some fine Wedge-peas were also found.

Perhaps the outstanding relic of the mining era was the Garfield wheel at Chewton, or rather the two huge masonry supports ten metres high that had once held the 96-spoked wheel 22 metres in diameter. On the circumference 220 iron buckets caught water from a wooden aqueduct. The wheel provided more than enough power to drive the rock-crushing batteries of the Madame Garfield mine.

Much interest was shown too, in the folded strata of the anticlines exposed at several places, and in the graptolite fossils found in slate of mine dumps. These provide geologists with valuable evidence for classifying strata, particularly where these have been altered by folding as in this area.

We all greatly appreciated the tremendously informative 10 page handout prepared by Stan, as well as his commentaries and general programming of the excursion.

E.G.E.

TIDAL RIVER CAMP-OUT

23-25 NOVEMBER, 1979

Nine members set up camp at Tidal River on Friday afternoon. After befriending many Crimson Rosellas, a start was made on a short walk to the beach where we sighted a Caspian Tern, Crested Terns and several Sooty Oystercatchers. The weather was good and a healthy appetite for tea was quickly achieved. Returning through the bush to our camp we unsuccessfully stalked several whipbirds. Calls were close by but the birds remained well hidden.

A pleasant evening was spent around the gas lamp camp fire in lieu of our usual wood fire (solid wood fires are prohibited until the end of summer in the National Park).

Saturday saw us walk from the camp to Lilly Pilly Gully and return by the coastal track which gave splendid views of Squeaky Beach and many other inlets and islands.

After lunch (at 3.30 p.m.) we set off by car to visit Squeaky Beach and Picnic Beach. The highlight of this was the sighting of two wombats grazing on the young shoots of marram grass on the dunes which were undergoing rejuvenation treatment.

On Sunday morning most of our group set off in the direction of Little Oberon Bay. Some continued further but others returned to camp to pack up and return to Geelong.

The best bird sighting was a pair of Spotted Pardalotes perching on twigs at the entrance to their nesting burrow. The members of the Botany Group found much to occupy them, and a good weekend was enjoyed by all.

I.T.

MUD ISLAND CAMP-OUT

26-28 JANUARY, 1980.

(By Geoff Gayner)

Twenty-one people attended with both Bird Observers Club and Geelong Field Naturalists Club represented.

The weather left a lot to be desired at first light on Saturday, but once on the water, conditions did improve; the wind was blowing from the south-west at about 20-30 knots with light rain squalls. Later in the day, the weather fined up, the temperature rose to 23 degrees C, and by Sunday the wind had abated, turned northerly, and the temperature was at around 27-30 degr. C.

would be of no use to try banding on Saturday night due to a bright moon,

Past experience showed that it cloudless sky and with a strong south-westerly blowing, too strong for the mist nets. By Sunday night the wind strength had lessened and there was a little cloud over the moon. The nets were unfurled and the first storm-petrel for the night was caught at 2300 hours.

Mist-netting of the adult White-faced Storm-petrels continued to 0400 hours and a total of 156 adults banded, as well as 19 retraps and 2 rebanded.

Only three mist-nets were set up for banding the petrels, these being at the southern end of the rookery. Ten mist-nets were set up in the Lagoon at the eastern end where 18 Red-necked Stints and two Red-capped Dotterels were caught and banded.

Silver Gulls are still the most common bird of the island; young birds were common although nesting was not as intense as in the previous year. Estimated 2500 gulls, many dead birds about and saltbush the favourite nesting cover.

Trees that had been planted during the year seemed to be doing well, but needed continuous protection against rabbits which were seen around the island and which were most active; few dead specimens were seen.

Fifty-three species of birds were recorded; large flocks of waders flew over from Swan Bay on the Monday morning and landed in the Lagoon where they stayed undisturbed, but over most of the weekend numbers of waders were low.

Estimating the storm-petrel population would be a difficult task, though I would say that the number has not changed since last year; the colony on Leg-of-Mutton Island is apparently still in use, as some birds were sighted going into burrows.

All in all, it was a pleasant weekend.

WEEKEND BIRD LIST:

White-faced Storm-petrel: Numbers not known.

Australian Pelican: Small numbers the first two days. A flock of 46 seen 28 January.

Australasian Gannet: Two seen from island. (Wedge Light — 30 adults, 10 young).

Pied Cormorant: 100 seen around island on sand banks and dead trees off island.

Little Pied Cormorant: Not so common — about 50.

Black Cormorant: A party of 14 birds and isolated birds off island.

Black-faced Cormorant: About 15 birds in flock in dead trees off island.

White-faced Heron: Six birds scattered around island.

Sacred Ibis: One solitary bird.

Royal Spoonbill: Flock of 20 visited the island,. roosted on Lagoon.

Black Swan: 100 - 150 on the Lagoon and 50 on the seaward side of island.

Mountain Duck: One solitary bird on the Lagoon.

Pied Oyster-catcher: A flock of 25 mostly on the Lagoon. No young birds.

Sooty Oyster-catcher: Three birds seen. Rested with the pieds but feed singly.

Masked Plover: Four birds mostly on the edge of Lagoon.

Grey Plover: First two days only a few. Morning of the 28 January a flock of 200 came over with other waders from Swan Bay.

Eastern Golden Plover: Isolated birds, 12 seen.

Mongolian Dotterel: A few seen and very approachable. 10.

Red-capped Dotterel: Not as common as previous years. 20 seen beach and Lagoon.

Turnstone: Numbers down on last year. 150.

Eastern Curlew: One bird seen on 27 January. A flock of 50 came over 28 January.
Whimbrel: Three seen with a flock of Godwits.
Greenshank: Isolated birds, beach and Lagoon. Six seen calling occasionally.
Bar-tailed Godwit: A few on sandbars and Lagoon. 100 seen on 28 January in Lagoon.
Knot: Isolated amongst wader groups. 100 seen on 28 January in Lagoon.
Great Knot: Four seen.
Sharp-tailed Sandpiper: Isolated groups about island. 40.
Red-necked Stint Most common wader. 2000.
Curlew Sandpiper: Next common wader. 1000 beaches and Lagoon.
Silver Gull: Numbers seemed down on last year. 2500. Some young birds about. NOTE: Still as many dead ones seen. Otherwise finished nesting.
Pacific Gull: 12 birds seen about island and immature bird.
Caspian Tern: 20 birds seen and one immature.
Little Tern: One bird seen, non-breeding.
Fairy Tern: Small numbers. 25 birds, seven pairs nesting (Western Island). One nest with two eggs, others one egg in each.
Crested Tern: Large numbers successful nesting season. 500 on island.
Eastern Common Tern: 50. Others scattered about island.
Double-banded Dotterel: In Lagoon, one bird seen with bright chest bands.
Arctic Skua: Six birds seen off island.
Fluttering Shearwater: One seen off island.
Short-tailed Shearwater: About 30 seen off island.
Swamp Harrier: Three adult and one immature birds.
Lewin Rail: One bird seen on edge of Lagoon.
Little Grass-bird: Often flushed from saltbush and Poa Grass. 20.
Goldfinch: One seen.
Tree Sparrow: Odd birds about.
House Sparrow: Small parties, about 20 birds.
Skylark: A pair had young. 12 seen. around island.
Welcome Swallow: A few single birds. About 6.
Spine-tailed Swift: Three flew over island in northerly direction, 10.30 a.m., 28 January. Warm with north wind.
Starling: About 50 birds roost on island and others return to mainland each day.

BEACH WASHED BIRDS:

Fluttering or Huttons Shearwater.

Curlew Sandpiper.

Fairy Tern.

Short-tailed Shearwater.

BANDING NOTES:

White-faced Storm-petrel: 156 adults.
19 retraps. 2 rebanded.

Red-necked Stint: 18 adults.

Red-capped Dotterel: 2 adults.

TWO OTWAY BIRD LISTS

GREY RIVER EXCURSION, SUNDAY, 18-3-1979.

KENNET RIVER:

Laughing Kookaburra
Silver Gull
Crested Tern
Australasian Gannet
Brown Falcon
Short-tailed Shearwater
Eastern Yellow Robin
Pied Cormorant
Silvereye (Tasmanian form).
Red Wattlebird
White-naped Honeyeater
Yellow-faced Honeyeater
Forest Raven

GREY RIVER SCENIC RESERVE:

Rufous Fantail
Grey Fantail
Crimson Rosella
Eastern Yellow Robin
Silvereye
Laughing Kookaburra
Red Wattlebird
Golden Whistler
Olive Whistler
Red-browed Firetail
Superb Blue Wren
White-throated Tree-creeper
White-browed Scrub-wren
Striated Thornbill
Grey Shrike-thrush
King Parrot
Sulphur-crested Cockatoo
Satin Flycatcher

The Satin Bowerbird bower at Grey River Reserve contained the following items:

Blue life-saver papers
Blue plastic ribbons
Blue rosella feathers
Blue plastic watch-band
Blue drinking straws
Blue aluminium foil
Golden-yellow beer bottle tops.
Yellow drinking straws
Piece of green garbage bag
Green garbage bag tie
Aluminium aspirin wrapper — silvery colour
Freshly excreted red seeds also!

Ken Jenkin Print

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